## Table S1. PTCL case characteristics and immunophenotyping results.

| PTCL-ID | Cohort | Institution of Origin | IHC Classification | Molecular Classification | TBX21 IHC | CXCR3 IHC | GATA3 IHC | CCR4 IHC | Morphology | CD4 | CD8 | TIA | GZB | CD30 | EBER (POS/NEG) | PD1 | CXCL13 | CD10 | ICOS | SAP | BCL6 | TCR | Gender | Age | Stage | Extranodal Sites | Serum LDH Level | IPI Score | Treatment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PTCL1 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | Unclassifiable by GEP | POS | POS | POS | POS | Pattern3 | NEG | POS | POS | NEG | POS | NEG | NEG | NEG | NA | NA | NA | NA | Polyclonal | Male | 58 | NA | NA | NA | NA | NA |
| PTCL2 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | NEG | NEG | Pattern3 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 68 | NA | NA | NA | NA | NA |
| PTCL3 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | Unclassifiable | Unclassifiable by GEP | NEG | NEG | NEG | NEG | NA | NEG | NEG | NEG | NEG | NEG | POS | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 67 | NA | NA | NA | NA | NA |
| PTCL4 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | POS | POS | Pattern3 | NEG | POS | POS | POS | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 74 | NA | NA | NA | NA | NA |
| PTCL5 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | POS | NEG | Pattern3 | POS | NEG | POS | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Polyclonal | Female | 62 | NA | NA | NA | NA | NA |
| PTCL6 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-GATA3 | PTCL-TBX21 | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NEG | NEG | POS | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 63 | NA | NA | NA | NA | NA |
| PTCL7 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | POS | POS | Pattern4 | NEG | POS | POS | POS | NEG | NEG | NEG | POS | NA | NA | NA | NA | Monoclonal | Male | 29 | NA | NA | NA | NA | NA |
| PTCL8 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | Unclassifiable by GEP | POS | POS | POS | POS | Pattern3 | POS | NEG | NEG | NEG | POS | POS | NEG | NEG | NA | NA | NA | NA | Polyclonal | Female | 88 | NA | NA | NA | NA | NA |
| PTCL9 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | PTCL-TBX21 | NEG | POS | NEG | NEG | Pattern3 | NA | NA | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Polyclonal | Female | 47 | NA | NA | NA | NA | NA |
| PTCL10 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | NEG | NEG | Pattern3 | NEG | POS | POS | NEG | NEG | NEG | NEG | POS | NA | NA | NA | NA | Monoclonal | Male | 55 | NA | NA | NA | NA | NA |
| PTCL11 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | Unclassifiable by GEP | POS | POS | POS | NEG | Pattern3 | NA | NA | NEG | NEG | POS | NEG | NEG | POS | NA | NA | NA | NA | Monoclonal | Female | 63 | NA | NA | NA | NA | NA |
| PTCL12 | TRAINING (GEP) | British Columbia Cancer Agency (Canada) | PTCL-TBX21 | Unclassifiable by GEP | NEG | POS | POS | NEG | Pattern3 | POS | NEG | POS | NEG | NEG | NEG | NEG | POS | NA | NA | NA | NA | Monoclonal | Male | 75 | NA | NA | NA | NA | NA |
| PTCL13 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-TBX21 | PTCL-GATA3 | POS | NEG | POS | NEG | Pattern1 | NEG | POS | POS | POS | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | NA | NA | NA | NA | NA | NA |
| PTCL14 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-GATA3 | Unclassifiable by GEP | NEG | NEG | POS | POS | Pattern2 | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 71 | IV | >1 | Normal | NA | CHOP/CHOP-Like |
| PTCL15 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-TBX21 | PTCL-TBX21 | NEG | POS | POS | POS | Pattern1 | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | NA | NA | NA | NA | NA | NA |
| PTCL16 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern1 | NA | NA | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 97 | NA | NA | NA | NA | None |
| PTCL17 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | POS | POS | Pattern4 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 68 | IV | ≤1 | NA | NA | CHOP/CHOP-Like |
| PTCL18 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | NA | NA | NA | NA | NA | NA |
| PTCL19 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | NEG | NEG | Pattern3 | NEG | POS | POS | POS | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Polyclonal | Female | 75 | IV | >1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL20 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-TBX21 | Unclassifiable by GEP | POS | POS | POS | POS | Pattern3 | NEG | POS | POS | POS | NEG | POS | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 76 | II | ≤1 | High | Low (0-2) | Other |
| PTCL21 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | POS | NEG | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 65 | IV | ≤1 | High | Low (0-2) | Other |
| PTCL22 | TRAINING (GEP) | University of Nebraska Medical Center (USA) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern2 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 70 | III | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL23 | TRAINING (GEP) | University of Wurzburg (Germany) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 75 | NA | NA | NA | NA | NA |
| PTCL24 | TRAINING (GEP) | University of Wurzburg (Germany) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | POS | POS | Pattern4 | NEG | POS | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 62 | NA | NA | NA | NA | NA |
| PTCL25 | TRAINING (GEP) | University of Wurzburg (Germany) | PTCL-GATA3 | PTCL-TBX21 | NEG | POS | POS | POS | Pattern3 | NEG | POS | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 63 | NA | NA | NA | NA | NA |
| PTCL26 | TRAINING (GEP) | University of Wurzburg (Germany) | PTCL-GATA3 | Unclassifiable by GEP | NEG | NEG | POS | POS | Pattern2 | POS | NEG | NEG | NEG | POS | POS | NEG | NEG | NA | NA | NA | NA | NA | Male | 86 | NA | NA | NA | NA | NA |
| PTCL27 | TRAINING (GEP) | University of Wurzburg (Germany) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | NEG | NEG | Pattern4 | POS | NEG | POS | POS | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Oligoclonal | Male | 58 | NA | NA | NA | NA | NA |
| PTCL28 | TRAINING (GEP) | University of Wurzburg (Germany) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 60 | NA | NA | NA | NA | NA |
| PTCL29 | TRAINING (GEP) | University of Wurzburg (Germany) | PTCL-TBX21 | PTCL-TBX21 | POS | NEG | NEG | NEG | Pattern4 | NEG | POS | POS | POS | POS | NEG | NEG | NEG | NA | NA | NA | NA | Polyclonal | Male | 65 | NA | NA | NA | NA | NA |
| PTCL30 | TRAINING (GEP) | Hospital Clinic -Barcelona (Spain) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern3 | POS | NEG | NEG | NEG | NEG | POS | NEG | NEG | NA | NA | NA | NA | NA | Female | 55 | NA | NA | NA | NA | NA |
| PTCL31 | TRAINING (GEP) | Hospital Clinic -Barcelona (Spain) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 59 | NA | NA | NA | NA | NA |
| PTCL32 | Validation | University of Nebraska Medical Center (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern3 | POS | NEG | NEG | NEG | NEG | POS | NEG | POS | NA | NA | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL33 | Validation | University of Nebraska Medical Center (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern3 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL34 | TRAINING (GEP) | National Cancer Centre (Singapore) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | POS | POS | Pattern1 | NA | NA | POS | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 78 | IV | NA | NA | NA | NA |
| PTCL35 | TRAINING (GEP) | National Cancer Centre (Singapore) | Unclassifiable | PTCL-TBX21 | NEG | NEG | NEG | NEG | Pattern1 | POS | NEG | POS | NEG | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL36 | TRAINING (GEP) | National Cancer Centre (Singapore) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern1 | NA | NA | NEG | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL37 | TRAINING (GEP) | National Cancer Centre (Singapore) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern2 | POS | POS | NEG | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL38 | TRAINING (GEP) | National Cancer Centre (Singapore) | PTCL-TBX21 | PTCL-TBX21 | NEG | POS | NEG | NEG | Pattern3 | POS | POS | POS | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL39 | TRAINING (GEP) | National Cancer Centre (Singapore) | PTCL-TBX21 | PTCL-TBX21 | NEG | POS | NEG | POS | Pattern3 | NA | NA | POS | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 74 | IV | NA | NA | NA | NA |
| PTCL40 | TRAINING (GEP) | National Cancer Centre (Singapore) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | NEG | NEG | Pattern3 | NA | NA | POS | NA | NEG | NA | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL41 | TRAINING (GEP) | National Cancer Centre (Singapore) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | POS | Pattern2 | POS | NEG | NEG | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL42 | TRAINING (GEP) | National Cancer Centre (Singapore) | PTCL-GATA3 | PTCL-GATA3 | NEG | NEG | POS | NEG | Pattern1 | POS | POS | NEG | NA | NEG | NA | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL43 | TRAINING (GEP) | Université Paris-Est (France) | PTCL-TBX21 | Unclassifiable by GEP | NEG | POS | NEG | NA | Pattern2 | NA | POS | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 21 | IV | NA | High | High (3-5) | NA |
| PTCL44 | TRAINING (GEP) | Université Paris-Est (France) | Unclassifiable | PTCL-GATA3 | NEG | NEG | NEG | NA | NA | NA | NA | NEG | NA | NA | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 77 | III | NA | High | Low (0-2) | NA |
| PTCL45 | TRAINING (GEP) | Université Paris-Est (France) | PTCL-TBX21 | PTCL-GATA3 | NEG | POS | NEG | NA | Pattern3 | NA | NEG | NEG | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 59 | IV | NA | High | High (3-5) | NA |
| PTCL46 | TRAINING (GEP) | Université Paris-Est (France) | PTCL-TBX21 | PTCL-TBX21 | POS | NEG | NEG | NA | NA | POS | NA | NA | NA | POS | NA | NEG | NEG | NA | NA | NA | NA | NA | Male | 57 | IV | NA | High | High (3-5) | NA |
| PTCL47 | TRAINING (GEP) | Université Paris-Est (France) | PTCL-TBX21 | PTCL-TBX21 | NEG | POS | NEG | NA | NA | POS | NEG | POS | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 35 | I | NA | Normal | Low (0-2) | NA |
| PTCL48 | TRAINING (GEP) | Université Paris-Est (France) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | POS | NA | NA | NEG | POS | POS | POS | POS | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 67 | III | NA | Normal | High (3-5) | NA |
| PTCL49 | TRAINING (GEP) | Université Paris-Est (France) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | NEG | NA | Pattern3 | POS | NEG | POS | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 42 | IV | NA | High | High (3-5) | NA |
| PTCL50 | TRAINING (GEP) | Université Paris-Est (France) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | NEG | NA | NA | NA | NEG | NA | NA | NA | NEG | NEG | NEG | NA | NA | NA | NA | Polyclonal | Male | 71 | III | NA | Normal | Low (0-2) | NA |
| PTCL51 | TRAINING (GEP) | Université Paris-Est (France) | PTCL-TBX21 | PTCL-TBX21 | POS | POS | NEG | NA | Pattern3 | POS | NEG | NA | NA | NA | POS | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 81 | IV | NA | Normal | High (3-5) | NA |
| PTCL52 | Validation | University of Nebraska Medical Center (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern2 | NEG | POS | POS | POS | NEG | POS | NEG | NEG | NA | NEG | NA | NA | NA | Male | 45 | II | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL53 | Validation | University of Nebraska Medical Center (USA) | PTCL-TBX21 | NA | NEG | POS | NEG | POS | Pattern3 | POS | NEG | NEG | NEG | NEG | POS | NEG | NEG | NA | NEG | NA | NA | NA | Female | 49 | III | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL54 | Validation | University of Nebraska Medical Center (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern1 | POS | NEG | POS | NEG | NEG | POS | NEG | NEG | NA | NEG | NA | NA | NA | Female | 72 | I | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL55 | Validation | University of Nebraska Medical Center (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | POS | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 67 | III | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL56 | Validation | University of Nebraska Medical Center (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | POS | NEG | POS | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | NA | Male | NA | NA | NA | NA | NA | NA |
| PTCL57 | Validation | University of Nebraska Medical Center (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | NA | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Female | 61 | III | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL58 | Validation | University of Nebraska Medical Center (USA) | PTCL-TBX21 | NA | POS | POS | NEG | NEG | Pattern3 | NA | NA | POS | NA | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Female | 60 | IV | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL59 | Validation | University of Nebraska Medical Center (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | NEG | POS | POS | POS | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 49 | IV | >1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL60 | Validation | University of Nebraska Medical Center (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | NEG | POS | POS | POS | NEG | POS | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 76 | IV | >1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL61 | Validation | University of Nebraska Medical Center (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | NEG | POS | POS | POS | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | NA | NA | NA | NA | NA | NA |
| PTCL62 | Validation | University of Nebraska Medical Center (USA) | Unclassifiable | NA | NEG | NEG | NEG | NEG | NA | POS | NEG | NEG | NEG | POS | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 62 | II | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL63 | Validation | Cleveland Clinic (USA) | PTCL-TBX21 | NA | NEG | POS | POS | NEG | Pattern2 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL64 | Validation | Cleveland Clinic (USA) | PTCL-TBX21 | NA | NEG | POS | POS | NEG | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL65 | Validation | Cleveland Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL66 | Validation | Cleveland Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL67 | Validation | Cleveland Clinic (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | POS | NEG | NEG | NA | NEG | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL68 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | POS | NEG | POS | POS | NEG | POS | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 46 | NA | NA | NA | NA | NA |
| PTCL69 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern2 | POS | NEG | NEG | NEG | NEG | POS | POS | NEG | NA | NEG | NA | NA | Monoclonal | Female | 53 | NA | NA | NA | NA | Others |
| PTCL70 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | NEG | POS | NEG | POS | Pattern1 | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | NA | Male | 54 | IV | NA | NA | NA | CHOP/CHOP-Like |
| PTCL71 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern4 | POS | POS | NEG | POS | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 59 | NA | NA | NA | NA | NA |
| PTCL72 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern3 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 56 | NA | NA | NA | NA | NA |
| PTCL73 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern2 | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | NA | Male | 68 | NA | NA | NA | NA | CHOP/CHOP-Like |
| PTCL74 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern3 | POS | POS | POS | POS | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 77 | NA | NA | NA | NA | Others |
| PTCL75 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | NEG | POS | NEG | POS | Pattern3 | POS | POS | POS | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 56 | NA | NA | NA | NA | Others |
| PTCL76 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | NEG | POS | POS | POS | NA | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 63 | NA | NA | NA | NA | NA |
| PTCL77 | Validation | City of Hope (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | NA | Male | 54 | IV | NA | NA | NA | CHOP/CHOP-Like |
| PTCL78 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | NA | Male | 65 | NA | NA | NA | NA | NA |
| PTCL79 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | NEG | NEG | NA | POS | POS | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 58 | NA | NA | NA | NA | Others |
| PTCL80 | Validation | City of Hope (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | NA | NA | POS | NEG | NEG | POS | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 76 | IV | NA | NA | NA | None |
| PTCL81 | Validation | City of Hope (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | Pattern1 | POS | NEG | NEG | NEG | NEG | NEG | NEG | NEG | NA | NEG | NA | NA | Monoclonal | Male | 71 | NA | NA | NA | NA | NA |
| PTCL82 | Validation | Bologna University (Italy) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | Pattern1 | POS | NEG | NA | NA | POS | NA | POS | NEG | NEG | NA | NA | NEG | NA | Male | 62 | NA | NA | NA | NA | NA |
| PTCL83 | Validation | Bologna University (Italy) | PTCL-TBX21 | NA | POS | POS | NEG | NA | Pattern3 | POS | NEG | NA | NA | NA | NEG | NEG | POS | NEG | NA | NA | NEG | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL84 | Validation | Bologna University (Italy) | Unclassifiable | NA | NEG | NEG | NEG | NA | Pattern1 | POS | NEG | NA | NA | POS | NA | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL85 | Validation | Bologna University (Italy) | Unclassifiable | NA | NEG | NEG | NEG | NA | Pattern3 | POS | NEG | NA | NA | NA | NA | NEG | POS | NEG | NA | NA | NEG | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL86 | Validation | Bologna University (Italy) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | Pattern1 | NEG | NEG | NEG | NEG | NEG | NA | NEG | NEG | NEG | NA | NA | NEG | NA | Male | 40 | NA | NA | NA | NA | NA |
| PTCL87 | Validation | Bologna University (Italy) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | Pattern2 | POS | NEG | NA | NA | NEG | NA | NEG | NEG | NEG | NA | NA | NEG | NA | Male | 47 | NA | NA | NA | NA | NA |
| PTCL88 | Validation | Bologna University (Italy) | PTCL-TBX21 | NA | NEG | POS | NEG | NA | Pattern3 | POS | NEG | NA | NA | POS | NA | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL89 | Validation | Bologna University (Italy) | PTCL-TBX21 | NA | NEG | POS | NEG | NA | Pattern3 | POS | POS | NA | NA | NEG | NA | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 33 | NA | NA | NA | NA | NA |
| PTCL90 | Validation | Bologna University (Italy) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | Pattern1 | NA | NEG | NA | NA | NEG | NA | NEG | rare1 | NEG | NA | NA | NEG | NA | Male | 54 | NA | NA | NA | NA | NA |
| PTCL91 | Validation | Bologna University (Italy) | PTCL-TBX21 | NA | NEG | POS | NEG | NA | Pattern4 | POS | NEG | NA | NA | POS | NA | NEG | NEG | NA | NA | NA | NA | Oligoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL92 | Validation | Bologna University (Italy) | PTCL-TBX21 | NA | NEG | POS | NEG | NA | Pattern3 | NEG | POS | NA | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NEG | NA | Female | 49 | NA | NA | NA | NA | NA |
| PTCL93 | Validation | Bologna University (Italy) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | Pattern1 | POS | NEG | NA | NA | NEG | NA | NEG | NEG | NEG | NA | NA | NEG | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL94 | Validation | Bologna University (Italy) | PTCL-TBX21 | NA | NEG | POS | NEG | NA | Pattern3 | POS | NEG | NA | NA | POS | NA | NEG | NEG | NA | NA | NA | NA | Monoclonal | NA | NA | NA | NA | NA | NA | NA |
| PTCL95 | Validation | Bologna University (Italy) | PTCL-TBX21 | NA | NEG | POS | NEG | NA | Pattern3 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NEG | NA | NA | NEG | Monoclonal | Female | 76 | NA | NA | NA | NA | NA |
| PTCL96 | Validation | Bologna University (Italy) | Unclassifiable | NA | NEG | NEG | NEG | NA | Pattern4 | NEG | NA | NA | NA | NEG | NA | POS | NEG | NEG | NA | NA | NEG | Monoclonal | Male | 41 | NA | NA | NA | NA | NA |
| PTCL97 | Validation | Bologna University (Italy) | PTCL-TBX21 | NA | NEG | POS | NEG | NA | Pattern1 | POS | POS | NA | NA | NA | NA | NEG | NEG | NEG | NA | NA | NEG | NA | Female | 63 | NA | NA | NA | NA | NA |
| PTCL98 | Validation | Bologna University (Italy) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | Pattern2 | NEG | NEG | NA | NA | POS | NEG | POS | NEG | NA | NA | NA | NEG | NA | Male | 59 | NA | NA | NA | NA | NA |
| PTCL99 | Validation | Bologna University (Italy) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | NA | POS | NEG | NA | NA | NEG | NA | POS | NEG | NEG | NA | NA | NEG | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL100 | Validation | Bologna University (Italy) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | NA | NEG | POS | NA | NA | NA | NA | POS | NEG | NEG | NA | NA | NEG | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL101 | Validation | Université Paris-Est (France) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | NA | NEG | NEG | NEG | NA | NA | NEG | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL102 | Validation | Université Paris-Est (France) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | NA | POS | NEG | NEG | NEG | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL103 | Validation | Université Paris-Est (France) | PTCL-TBX21 | NA | NEG | POS | NEG | NA | NA | NEG | NEG | NA | NA | NA | NEG | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL104 | Validation | Université Paris-Est (France) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | NA | NEG | POS | POS | NA | NA | NEG | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL105 | Validation | Université Paris-Est (France) | PTCL-TBX21 | NA | POS | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NEG | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL106 | Validation | Université Paris-Est (France) | PTCL-GATA3 | NA | NEG | NEG | POS | NA | NA | NA | NA | NA | NA | NA | NA | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL107 | Validation | Université Paris-Est (France) | PTCL-TBX21 | NA | POS | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL108 | Validation | Université Paris-Est (France) | PTCL-TBX21 | NA | POS | POS | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NEG | NEG | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PTCL109 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern4 | POS | NEG | NEG | NA | NEG | NEG | POS | NEG | NEG | NEG | NA | NA | Monoclonal | Male | 69 | IV | >1 | Normal | High (3-5) | NA |
| PTCL110 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern4 | NA | NA | NA | NA | NA | NA | NEG | NEG | NA | NA | NA | NA | NA | Male | 50 | III | ≤1 | High | High (3-5) | NA |
| PTCL111 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern3 | POS | NEG | POS | NEG | POS | NEG | NEG | NA | NEG | NEG | NA | NA | NA | Male | 59 | IV | ≤1 | High | Low (0-2) | NA |
| PTCL112 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | NA | POS | POS | NEG | NA | NA | NA | NEG | NEG | NA | NEG | NA | NA | NA | Male | 58 | II | ≤1 | Normal | Low (0-2) | NA |
| PTCL113 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | NA | POS | NEG | POS | NEG | NEG | NEG | NEG | NA | NA | NEG | NA | NA | Polyclonal | Male | 45 | IV | >1 | High | High (3-5) | NA |
| PTCL114 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | POS | NEG | NA | NA | NEG | NA | NEG | NA | NEG | NA | NA | NA | Monoclonal | Female | 34 | IV | ≤1 | High | Low (0-2) | NA |
| PTCL115 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern3 | NA | NA | NA | NA | NA | NA | NEG | NEG | NA | NA | NA | NA | NA | Male | 66 | III | ≤1 | Normal | High (3-5) | NA |
| PTCL116 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | NEG | POS | POS | POS | Pattern1 | POS | NEG | NA | NA | NEG | NEG | NEG | NA | NEG | NA | NA | NA | Monoclonal | Male | 79 | II | ≤1 | Normal | Low (0-2) | NA |
| PTCL117 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | NEG | POS | NEG | NEG | NEG | POS | NEG | NA | NEG | NA | NA | NA | Polyclonal | Male | 53 | IV | ≤1 | High | High (3-5) | NA |
| PTCL118 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern3 | POS | NA | NA | NA | NEG | NEG | NEG | NA | NEG | NA | NA | NA | NA | Male | 54 | II | ≤1 | Normal | Low (0-2) | NA |
| PTCL119 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | NEG | POS | POS | POS | Pattern1 | NA | NA | NA | NA | NEG | NA | NEG | NA | NEG | NA | NA | NA | NA | Male | 71 | IV | ≤1 | High | High (3-5) | NA |
| PTCL120 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | NEG | POS | POS | NA | POS | NEG | NA | NA | NEG | NEG | NEG | NA | NEG | NEG | NA | NA | Monoclonal | Female | 56 | III | ≤1 | Normal | Low (0-2) | NA |
| PTCL121 | Validation | Mayo Clinic (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern2 | POS | NEG | NEG | NEG | NEG | NA | NEG | NA | NEG | NEG | NA | NA | NA | Female | 78 | III | ≤1 | NA | Low (0-2) | NA |
| PTCL122 | Validation | Mayo Clinic (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | NEG | NEG | NA | NA | NEG | NEG | POS | NA | NA | NEG | NA | NA | NA | Female | 62 | IV | >1 | NA | High (3-5) | NA |
| PTCL123 | Validation | Mayo Clinic (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern2 | POS | NA | NA | NA | NEG | NA | NEG | NA | NA | NEG | NA | NA | NA | Male | 53 | III | ≤1 | NA | Low (0-2) | NA |
| PTCL124 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | POS | NEG | POS | NEG | NA | NA | NA | NA | NA | NEG | NA | NEG | NA | NA | NEG | NA | NA | Monoclonal | Male | 52 | IV | ≤1 | NA | Low (0-2) | NA |
| PTCL125 | Validation | Mayo Clinic (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern2 | NEG | NEG | NA | NA | NA | NA | NEG | NA | NA | NEG | NA | NA | NA | Female | 64 | IV | ≤1 | High | High (3-5) | NA |
| PTCL126 | Validation | Mayo Clinic (USA) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern2 | POS | NEG | NEG | NA | POS | NA | NEG | NA | NEG | NEG | NA | NA | NA | Male | 46 | I | ≤1 | Normal | Low (0-2) | NA |
| PTCL127 | Validation | Mayo Clinic (USA) | PTCL-TBX21 | NA | NEG | POS | NEG | NEG | Pattern3 | NA | NA | NA | NA | NEG | NA | NEG | NEG | NA | NEG | NA | NA | NA | Male | 41 | I | ≤1 | Normal | Low (0-2) | NA |
| PTCL128 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern2 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 71 | IV | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL129 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | POS | POS | NA | NA | POS | NEG | NEG | POS | NA | NA | NA | NA | Monoclonal | Female | 82 | I | >1 | High | NA | CHOP/CHOP-Like |
| PTCL130 | Validation | Aarhus University Hospital (Denmark) | Unclassifiable | NA | NEG | NEG | NEG | NEG | Pattern4 | NEG | POS | NA | NA | NEG | NEG | NEG | POS | NA | NA | NA | NA | Monoclonal | Male | 54 | IV | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL131 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern3 | POS | POS | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 71 | I | >1 | High | NA | CHOP/CHOP-Like |
| PTCL132 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | NEG | POS | NEG | NEG | Pattern3 | POS | NEG | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 49 | I | >1 | High | NA | CHOP/CHOP-Like |
| PTCL133 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | NEG | POS | NEG | NA | NEG | POS | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 38 | NA | ≤1 | Normal | NA | CHOP/CHOP-Like |
| PTCL134 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern2 | NEG | POS | NA | NA | POS | NEG | NEG | POS | NA | NA | NA | NA | NA | Female | 92 | III | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL135 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern1 | POS | POS | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 74 | III | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL136 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | NA | NEG | POS | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 70 | IV | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL137 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | NEG | NEG | NEG | Pattern3 | POS | NEG | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 35 | III | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL138 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern1 | NEG | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 54 | IV | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL139 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | NEG | NEG | Pattern3 | POS | POS | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 25 | I | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL140 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern3 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 66 | III | ≤1 | NA | NA | CHOP/CHOP-Like |
| PTCL141 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern3 | POS | NEG | NA | NA | NEG | NEG | NEG | POS | NA | NA | NA | NA | NA | Male | 81 | III | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL142 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | NEG | NEG | POS | Pattern4 | NEG | POS | NA | NA | POS | NEG | NEG | POS | NA | NA | NA | NA | NA | Male | 54 | IV | >1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL143 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern1 | POS | POS | NA | NA | NEG | POS | NEG | NEG | NA | NA | NA | NA | NA | Male | 51 | IV | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL144 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | NEG | NEG | NEG | Pattern3 | NEG | POS | NA | NA | NEG | POS | NEG | NEG | NA | NA | NA | NA | NA | Female | 75 | IV | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL145 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 61 | III | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL146 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | NEG | NEG | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 66 | III | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL147 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 73 | III | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL148 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | NEG | POS | POS | NEG | Pattern3 | POS | POS | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 82 | IV | >1 | Normal | High (3-5) | CHOP/CHOP-Like |
| PTCL149 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern4 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 62 | IV | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL150 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern1 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 67 | NA | >1 | High | NA | CHOP/CHOP-Like |
| PTCL151 | Validation | Aarhus University Hospital (Denmark) | Unclassifiable | NA | NEG | NEG | NEG | NEG | Pattern1 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Polyclonal | Male | 78 | IV | >1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL152 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | POS | NEG | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 58 | II | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL153 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | NA | POS | NEG | NA | NA | POS | NEG | POS | NEG | NA | NA | NA | NA | Monoclonal | Female | 58 | II | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL154 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern1 | POS | POS | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | Oligoclonal | Male | 28 | IV | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL155 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern3 | POS | NEG | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 64 | II | >1 | High | NA | CHOP/CHOP-Like |
| PTCL156 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | POS | NEG | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | Polyclonal | Female | 25 | III | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL157 | Validation | Aarhus University Hospital (Denmark) | Unclassifiable | NA | NEG | NEG | NEG | NEG | Pattern3 | POS | NEG | NA | NA | POS | POS | NEG | NEG | NA | NA | NA | NA | Monoclonal | Female | 20 | IV | >1 | High | High (3-5) | Others |
| PTCL158 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern1 | POS | POS | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 56 | IV | >1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL159 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | NA | POS | NEG | NA | NA | POS | NEG | POS | NEG | NA | NA | NA | NA | NA | Female | 64 | III | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL160 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern3 | POS | POS | NA | NA | NEG | POS | NEG | NEG | NA | NA | NA | NA | NA | Female | 25 | IV | >1 | High | High (3-5) | Others |
| PTCL161 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern3 | POS | NEG | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 55 | III | >1 | NA | NA | CHOP/CHOP-Like |
| PTCL162 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | NEG | NEG | NEG | NA | NEG | POS | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 62 | III | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL163 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | NEG | POS | POS | POS | Pattern1 | POS | NEG | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 65 | II | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL164 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | NEG | NEG | NA | POS | POS | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 79 | IV | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL165 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | NEG | POS | NEG | POS | Pattern4 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 68 | IV | ≤1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL166 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | NEG | Pattern2 | NEG | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 82 | NA | ≤1 | High | NA | Others |
| PTCL167 | Validation | Aarhus University Hospital (Denmark) | Unclassifiable | NA | NEG | NEG | NEG | NEG | Pattern1 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 48 | NA | >1 | NA | NA | CHOP/CHOP-Like |
| PTCL168 | Validation | Aarhus University Hospital (Denmark) | PTCL-GATA3 | NA | NEG | NEG | POS | POS | Pattern1 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 80 | I | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL169 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | POS | POS | NA | NA | POS | NEG | NEG | POS | NA | NA | NA | NA | NA | Male | 37 | IV | ≤1 | High | Low (0-2) | CHOP/CHOP-Like |
| PTCL170 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | POS | POS | Pattern3 | POS | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 67 | IV | >1 | High | High (3-5) | CHOP/CHOP-Like |
| PTCL171 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | POS | POS | POS | NEG | Pattern3 | POS | POS | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | Monoclonal | Male | 56 | I | >1 | High | NA | CHOP/CHOP-Like |
| PTCL172 | Validation | Aarhus University Hospital (Denmark) | PTCL-TBX21 | NA | NEG | POS | NEG | NEG | Pattern3 | NEG | POS | NA | NA | POS | NEG | NEG | NEG | NA | NA | NA | NA | NA | Female | 50 | I | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |
| PTCL173 | Validation | Aarhus University Hospital (Denmark) | Unclassifiable | NA | NEG | NEG | NEG | NEG | Pattern3 | NEG | NEG | NA | NA | NEG | NEG | NEG | NEG | NA | NA | NA | NA | NA | Male | 28 | II | ≤1 | Normal | Low (0-2) | CHOP/CHOP-Like |

GEP: Gene Expression Profiling
IHC: Immunohistochemistry
LDH: Lactate Dehydrogenase
IPI: International Prognositc Index
TCR: T-cell Receptor

**Table S2. Antibodies and immunostaining conditions.**

| Antibody | Clone (Source) | Primary Antibody (Dilution/Time) | Antigen Retrieval | Detection System / IHC Platform |
|---|---|---|---|---|
| TBX21 | 4B10 (SantaCruz) | 1:250<br>15 mins | Epitope Retrieval-ER2 (pH 9) 30 mins | Refine Detection System (Leica) / Leica Bond-III (Leica Biosystems, Buffalo Grove, IL) |
| CXCR3 | 1C6/CXCR3 (BD Pharmangen) | 1:125<br>60 mins | CC1 (pH 8.5)<br>24 mins | Optiview DAB IHC Detection System without amplifier / Ventana DISCOVERY ULTRA instrument (Ventana Medical Systems, Inc, Tucson, AZ) |
| GATA3 | L50-823 (Roche Tissue Diagnostics) | RTU<br>40 mins | CC1 (pH 8.5)<br>40 mins | Optiview DAB IHC Detection System without amplifier / Ventana DISCOVERY ULTRA instrument (Ventana Medical Systems, Inc, Tucson, AZ) |
| CCR4 | Polyclonal (Catalog# nbp1-86584) | 1:50<br>60 mins | CC1 (pH 8.5)<br>24 mins | Optiview DAB IHC Detection System without amplifier / Ventana DISCOVERY ULTRA instrument (Ventana Medical Systems, Inc, Tucson, AZ) |

RTU: ready to use

**Table S3. Comparison of IHC marker positivity by GEP subgroup classification in the training cohort.**

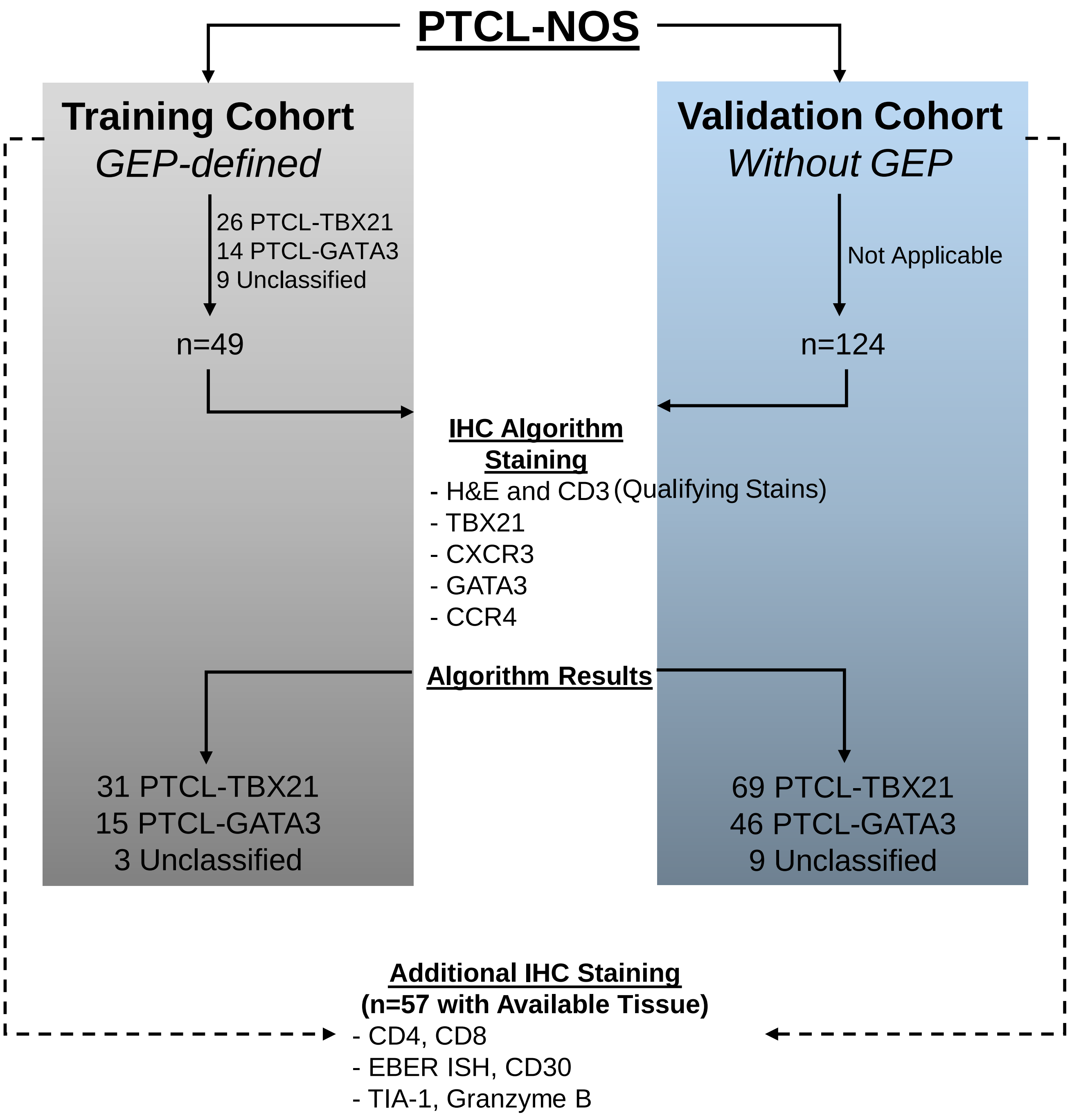
| | | Molecular Diagnosis by GEP | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | PTCL-GATA3 (n=14) | | PTCL-TBX21 (n=26) | | Unclassifiable (n=9) | | Total (n=49) |
| GATA3 | < 50% | | 3 (21.4%) | | 15 (57.7%) | | 2 (22.2%) | | 20 (40.8%) |
| | ≥50% | | 11 (78.6%) | | 11 (42.3%) | | 7 (77.8%) | | 29 (59.1%) |
| TBX21 | < 20% | | 13 (92.9%) | | 8 (30.8%) | | 5 (55.6%) | | 26 (53.1%) |
| | ≥20% | | 1 (7.1%) | | 18 (69.2%) | | 4 (44.4%) | | 23 (46.9%) |
| CCR4 | < 50% | n= 12 | 2 (16.7%) | n= 20 | 11 (55.0%) | n= 8 | 3 (37.5%) | n= 40 | 16 (40.0%) |
| | ≥50% | | 10 (83.3%) | | 9 (45.0%) | | 5 (62.5%) | | 24 (60.0%) |
| CXCR3 | < 20% | | 13 (92.9%) | | 5 (19.2%) | | 3 (33.3%) | | 21 (42.9%) |
| | ≥20% | | 1 (7.4%) | | 21 (80.8%) | | 6 (66.7%) | | 28 (57.1%) |

**GEP: Gene Expression Profiling.**

**Table S4. Comparison of IHC markers and subtype characteristics by cohort.**

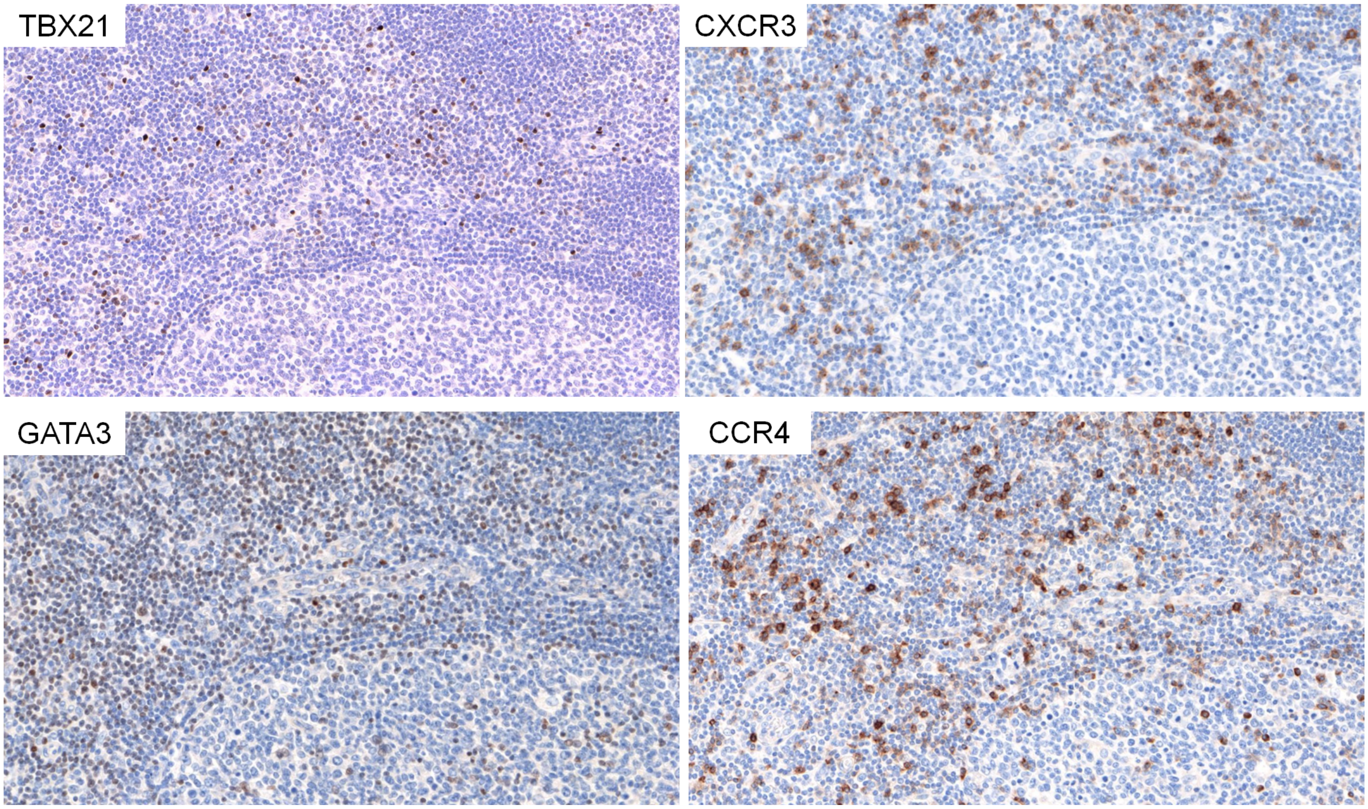
| | | | COHORT | | | |
|---|---|---|---|---|---|---|
| | | | **Training (n=49)** | | **Validation (n=124)** | **p-value** |
| GATA3 | < 50% | | 20 (40.8%) | | 35 (28.2%) | 0.11 |
| | ≥50% | | 29 (59.2%) | | 89 (71.8%) | |
| TBX21 | < 20% | | 26 (53.1%) | | 77 (62.0%) | 0.28 |
| | ≥20% | | 23 (46.9%) | | 47 (38.0%) | |
| CCR4 | < 50% | n=40 | 16 (40.0%) | n= 96 | 51 (53.1%) | 0.16 |
| | ≥50% | | 24 (60.0%) | | 45 (46.8%) | |
| CXCR3 | < 20% | | 21 (42.9%) | | 64 (51.6%) | 0.30 |
| | ≥20% | | 28 (57.1%) | | 60 (48.4%) | |
| IHC Classification | PTCL-GATA3 | | 15 (30.6%) | | 46 (37.1%) | 0.65 |
| | PTCL-TBX21 | | 31 (63.3%) | | 69 (55.7%) | |
| | Unclassifiable | | 3 (6.1%) | | 9 (7.3%) | |

Supplemental Figure 1


PTCL-NOS
Training Cohort
GEP-defined
26 PTCL-TBX21
14 PTCL-GATA3
9 Unclassified
n=49
Validation Cohort
Without GEP
Not Applicable
n=124
IHC Algorithm Staining
- H&E and CD3 (Qualifying Stains)
- TBX21
- CXCR3
- GATA3
- CCR4
Algorithm Results
31 PTCL-TBX21
15 PTCL-GATA3
3 Unclassified
69 PTCL-TBX21
46 PTCL-GATA3
9 Unclassified
Additional IHC Staining
(n=57 with Available Tissue)
- CD4, CD8
- EBER ISH, CD30
- TIA-1, Granzyme B

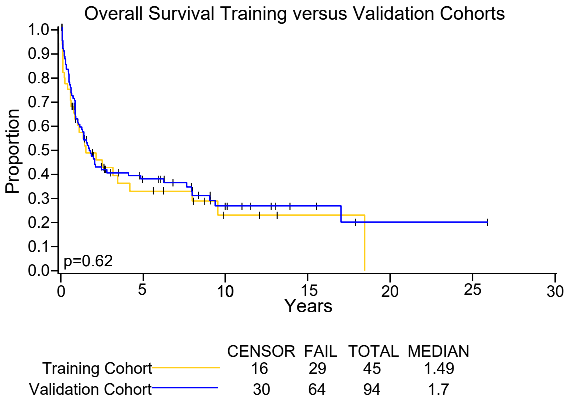
**Supplemental Figure 1: Diagram of the study for inclusion of the cases in the training and validation cohorts and additional immunophenotyping.**

Supplemental Figure 2



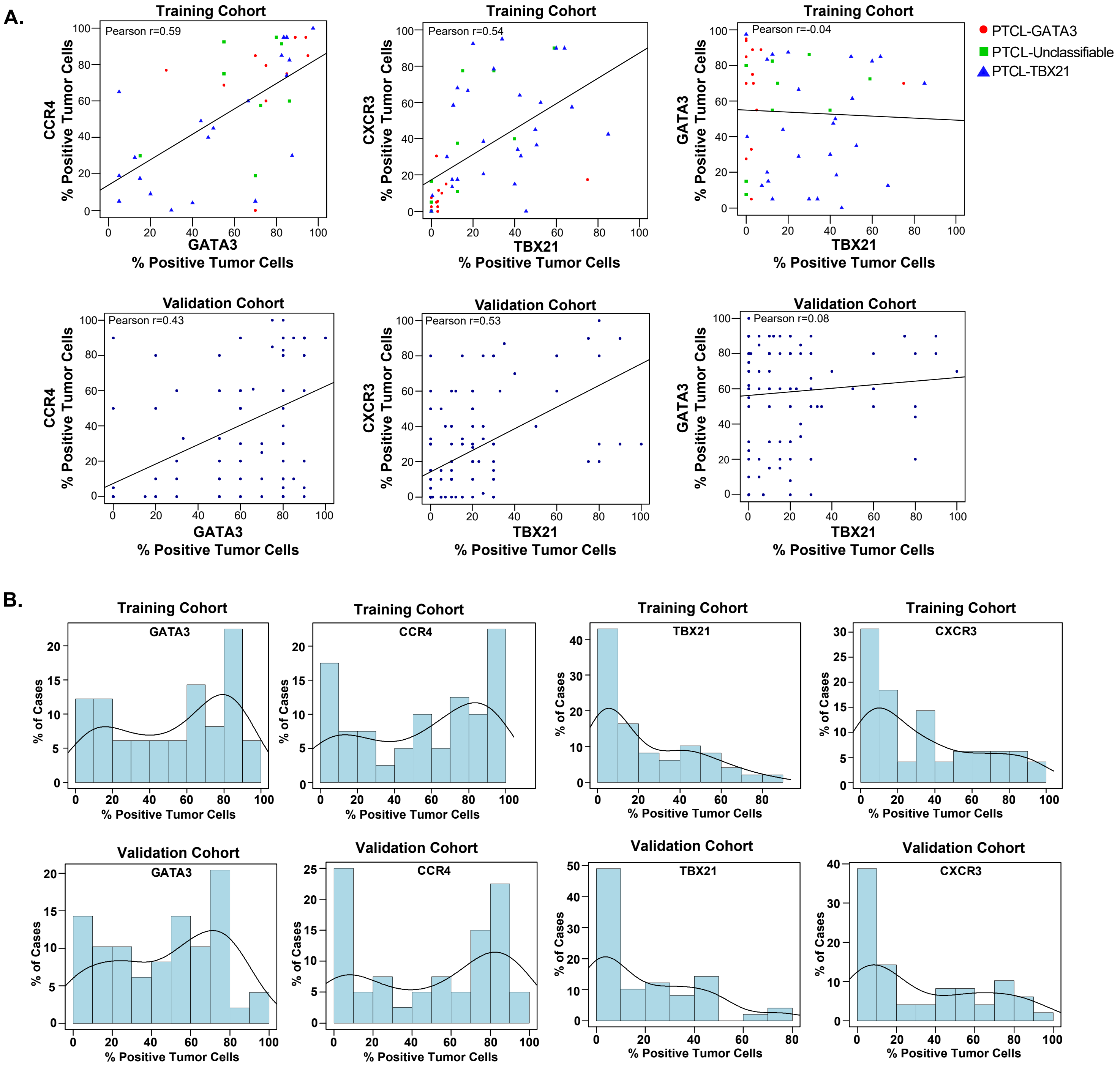
**Supplemental Figure 2: Standardization of the immunostains for the IHC algorithm in tonsil tissue.** Note the nuclear staining for TBX21 and GATA3, and membranous staining for CXCR3 and CCR4.

## Supplemental Figure 3


Overall Survival Training versus Validation Cohorts

**Supplemental Figure 3:** Overall survival of the training and validation cohorts. Similar OS was observed between the training and the validation cohorts.

Supplemental Figure 4

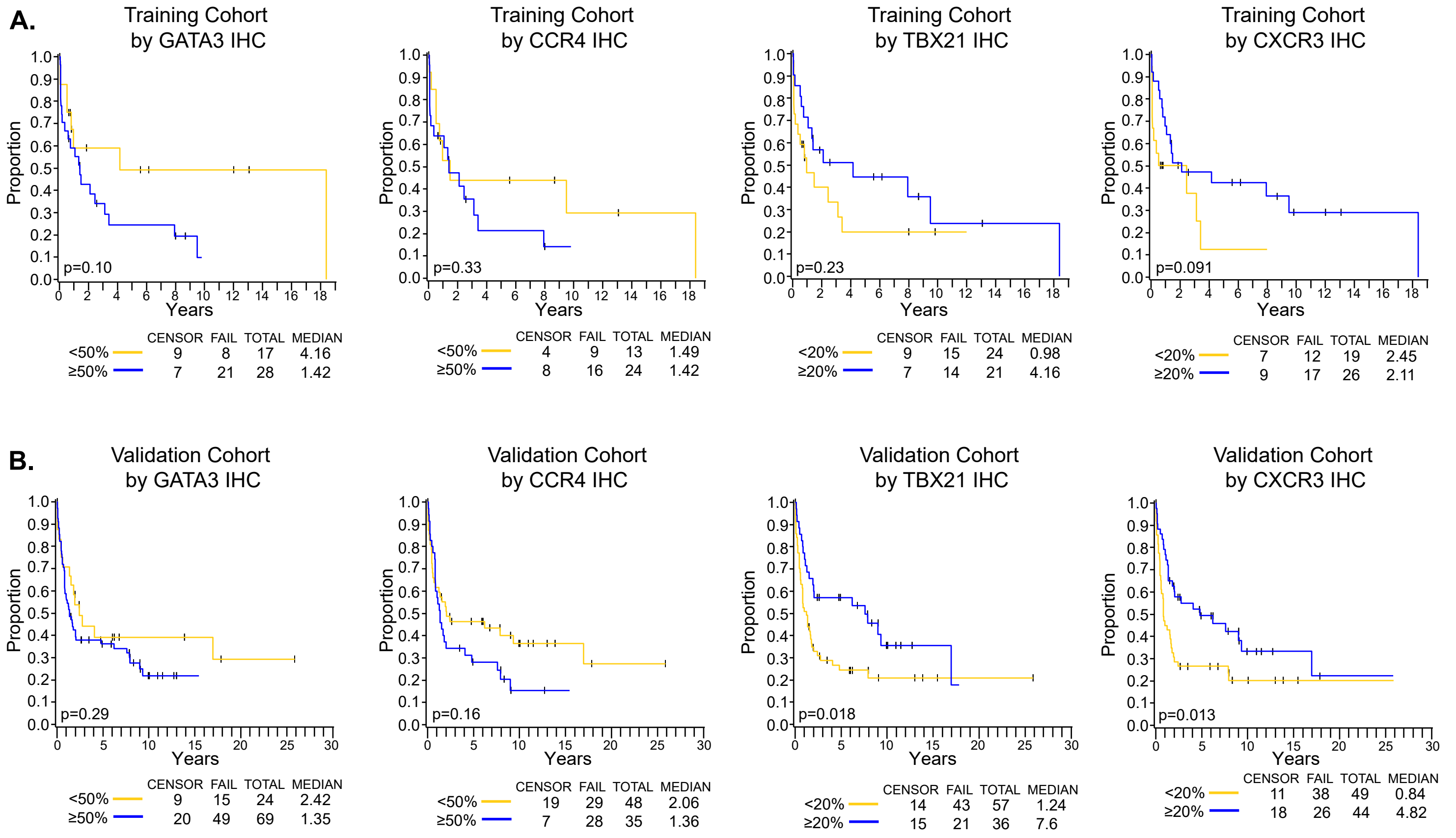


**Supplemental Figure 4**

**4A: Correlation between expression of the transcription factors (GATA3 and TBX21) and their target proteins (CCR4 and CXCR3, respectively) in corresponding cases.** Positive correlation was observed between GATA3 and CCR4, and between TBX21 and CXCR3 in the training and validation cohorts. No correlation was observed between TBX21 and GATA3.

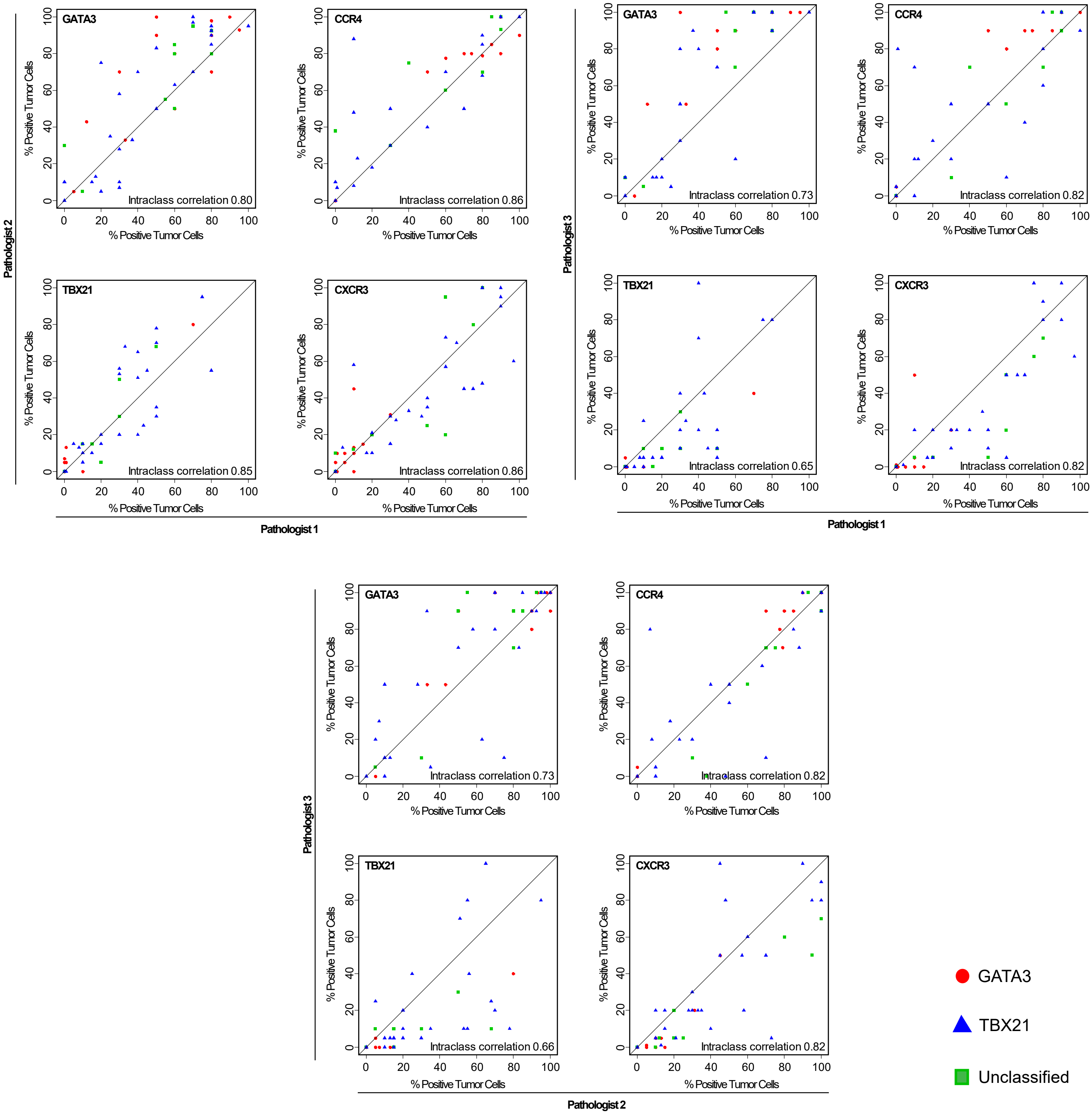
**4B: Distribution of positivity of the different immunostains for the four selected antibodies.** Similar trends of positivity were observed between GATA3 and CCR4. Less than 25% of the PTCL-NOS cases showed no or low expression of either GATA3 or CCR4, whereas ~50% of the cases showed no or low expression of TBX21 and CXCR3.

# Supplemental Figure 5



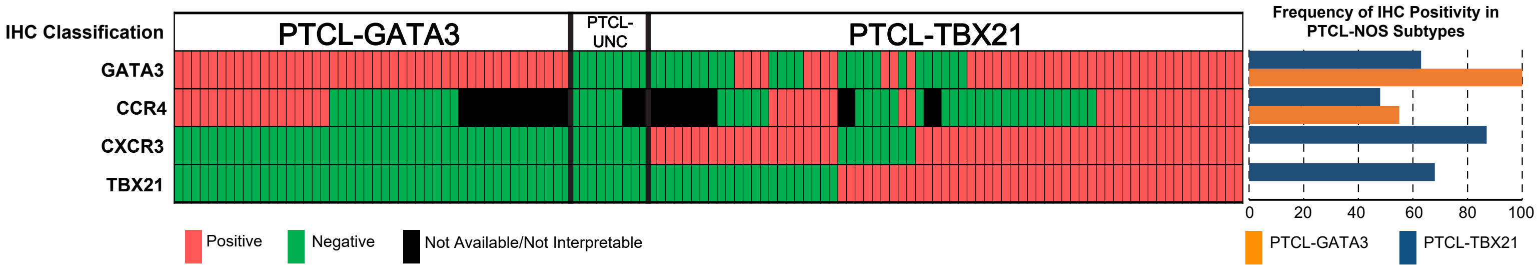
**Supplemental Figure 5: Correlation of individual immunostains with overall survival.** Similar trends of OS were observed for all IHC stains in the training (**A.**) and validation (**B.**) cohorts. TBX21 and CXCR3 showed a significant association with OS in the validation cohort, but not observed in the training cohort.

Supplemental Figure 6



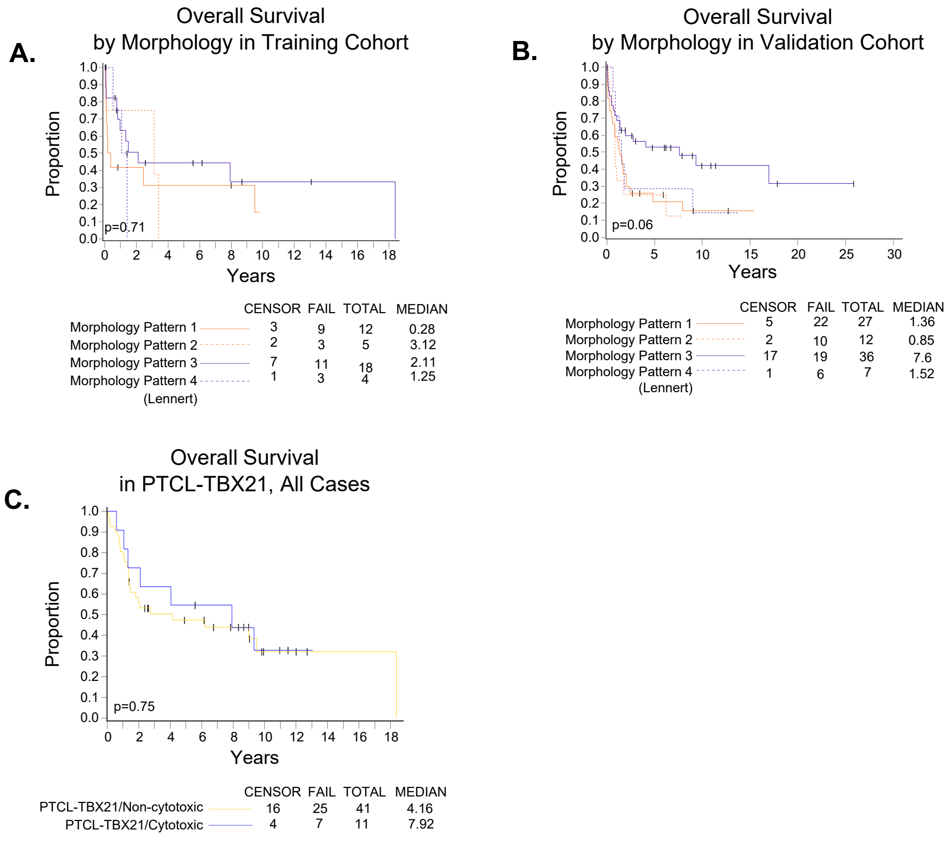
**Supplemental Figure 6: Intraclass correlation of immunostains between three independent pathologists analyzed in pairs.** Moderate to strong concordance was observed for the four immunostains.

# Supplemental Figure 7



**Supplemental Figure 7: Heatmap representation of algorithm immunostains and IHC algorithm classification in validation cohort cases.** The frequency of the individual immunostain positivity in the validation cohort in the PTCL-subtypes is shown on the right.

## Supplemental Figure 8



**Supplemental Figure 8: Association of overall survival with morphological patterns (A-B) and with a cytotoxic phenotype (C).** A non-significant trend (p=0.06) towards inferior OS was observed in the validation cohort for the monomorphic (1 and 2) and Lennert patterns, but was not significant in the training cohort (**A-B**). No difference in OS was observed in the cases with a cytotoxic immunophenotype when compared to non-cytotoxic PTCL-TBX21 (**C**).

**Please find a list of the current Lymphoma/Leukemia Molecular Profiling Project (LLMPP) members:**

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