

SUPPLEMENTARY MATERIALS

K-Pro: Kinetics data on proteins and mutants

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Variant type	# entries	% entries
Wild-type	91	6.0
Single	1,341	87.7
Multiple	97	6.3

Table S1: Composition of the K-Pro database in terms of variant types

Secondary Structure	# single variants	% single variants
Helix	581	43.8
Single	390	29.4
Multiple	356	26.8

Table S2: Secondary structure of the wild-type residue in 1,327 single mutants

Solvent Exposure	# entries	% entries
RSA \leq 10	447	33.7
10<RSA<40	445	33.5
RSA \geq 40	435	32.8

Table S3: Solvent exposure of the wild-type residue in 1,327 single mutants

Protein length	# entries	% entries
L≤50	218	14.3
50<L<100	1,103	72.1
L≥100	208	13.6

Table S4: Composition of the K-Pro database in terms of protein length

UniProt ID	# Entries	% Entries
P06241	125	8.2
P38507	107	7.0
P01053	92	6.0
P02417	86	5.6
Q53291	72	4.7
Q13158	62	4.1
P12931	58	3.8
Q51918	50	3.3
P04049	49	3.2
Q8CGF7	47	3.1
O75400,P24821	44	2.9
P0ABE7	42	2.8
P0AEZ7	40	2.6
P07751	37	2.4
P45481,P40040,P62942	36	2.4
P07107	35	2.3
P13479	34	2.2
P06654	33	2.2
P0CG48	29	1.9
P06748,P14621	28	1.8
P39476,P32081	25	1.6
Q8ZUR6	23	1.5
P61024,P11961	22	1.4
O66474,P0AFG6,P48052	20	1.3
P62993,P31787,Q9RA57	19	1.2
P00282	18	1.2
P02966	2	0.1
P02640,P00171,P07311,Q23551,P23727,P23370,P46937,P06876 P41016,Q9NYB0,P54274,P0AA04,P0A9X9,P11182,P00524, P03034, P56278,P15891,P0DQD3,P00523,O54310, Q56311,P68206	1	0.1

Table S5: Number of entries for each UniProt code in K-Pro, for the 1529 total entries.

PDB ID	# Entries	% Entries
1shf	125	8.2
1coa	92	6.0
2ptl	72	4.7
1ss1	64	4.2
1e41	62	4.1
1fmk	58	3.8
1rfa	49	3.2
1e0l	47	3.1
2hbb	45	2.9
1uzc,1ten	44	2.9
1bdc	43	2.8
1yyj	42	2.7
1div	41	2.7
1e0g	40	2.6
1shg	37	2.4
2wqg,1sb0,1fkb	36	2.4
2abd,2jws	35	2.3
1imq	34	2.2
1pgb	33	2.2
1ubq	29	1.9
2vxd	28	1.8
1csp,1bnz	25	1.6
1w4j	23	1.5
1dkt,1w4e	22	1.4
2wxc,2j5a,1o6x	20	1.3
1st7,1n88,2vwf	19	1.2
1azu	18	1.2
2fs1	15	1.0
1prs	2	0.1
1c9o,2vik,2a3d,1k8m,1cyo,2vh7,1wit,1idy,1l2y,1fex,1mjc,1jo8,1k0s,1m9s,1qtu,1pnj,1ryk,1rlq,1sha,1ba5,1g6p,3kz3,1opd,1jmq,1ris	1	0.1

Table S6: Number of entries for each PDB code in K-Pro, for the 1529 total entries.

PFAM ID	# Entries	% Entries
PF00018	241	16.6
PF02216	107	7.4
PF00280	92	6.3
PF01281	86	5.9
PF02246	72	5.0
PF02817	65	4.5
PF00531	62	4.3
PF00017	59	4.1
PF07714	58	4.0
PF00887	54	3.7
PF02196	49	3.4
PF00397	48	3.3
PF00041,PF01846	44	3.0
PF03948	41	2.8
PF01476	40	2.8
PF00254,PF02172,PF02037	36	2.5
PF01320	34	2.3
PF01378	33	2.3
PF00708,PF00240	29	2.0
PF00313,PF16276	28	1.9
PF02294	25	1.7
PF01111	22	1.5
PF01250	21	1.4
PF02244	20	1.4
PF00276	19	1.3
PF00127	18	1.2
PF17573	15	1.0
PF00030,PF00249	2	0.1
PF00173,PF05532,PF00381,PF01381,PF00626,PF07679,PF00364,PF13457,PF01584,PF08914,PF01840	1	0.1

Table S7: Number of entries for each PFAM code in K-Pro, for the 1,449 total entries.

CATH Class	# Entries	% Entries
Alpha Beta	529	38.5
Mainly Alpha	422	30.7
Mainly Beta	368	26.8
Few Secondary Structures	65	4.7

Table S8: Number of entries for each CATH class in K-Pro, for the 1,375 total entries.

EC Number	# Entries	% Entries
2.7.10.2	185	40.0
2.7.11.1	50	10.8
2.3.1.12	45	9.7
4.2.2.n1	40	8.7
2.3.1.48, 5.2.1.8	36	7.8
3.6.1.7	29	6.3
2.3.1.61, 3.4.17.15	20	4.3
2.3.1.168	1	0.2

Table S9: Number of entries for each EC Number in K-Pro, for the 462 total entries.