

PDB ID	Ligand ID	Ligand Formula	Protein name	Ligand Name	$\log(K_i)$	Weight	AA Count	Citation
2q89	6CS	$C_6H_{10}N_6O_3$	putative abc transporter amino acid-binding protein	(4s,5s)-5-hydroxy-2-methyl-1,4,5,6-tetrahydropyrimidine-4-carboxylic acid	6.3	158.155	257	{Hanekep et al., 2007}
8bgz	VX3	$C_{21}H_{15}NO_2$	proto-oncogene serine/threonine-protein kinase pim-1	2,3-diphenyl-1h-indole-7-carboxylic acid	6.26	313.349	333	{Pierce et al., 2008}
1ukb	BEZ	$C_8H_6O_2$	2-hydroxy-6-oxo-7-methylocta-2,4-dienoate hydrolase	benzoic acid	3.19	122.121	282	{Fushinobu et al., 2005}
1vot	HUP	$C_{15}H_{18}N_2O$	acetylcholinesterase	huperzine a	6.6	242.316	537	{Raves et al., 1997}
2p7g	2OH	$C_{15}H_{16}O_2$	estrogen-related receptor gamma	4,4'-propane-2,2-diylidiphenol	6.53	228.286	251	{Abad et al., 2008}
2rea	GLY	$C_2H_5NO_2$	glutamate [mnda] receptor subunit 3b	Glycine	7.79	75.066	584	{Yao et al., 2008}
2vak	P83	$C_{16}H_{16}N_2$	cellular tumor antigen p53	1-(9-ethyl-9h-carbazol-3-yl)-n-methylmethanamine	3.82	238.328	438	{Boeckler et al., 2008}
2nta	521	$C_{12}H_6ClN_2O_3S_2$	tyrosine-protein phosphatase non-receptor type 1	5-(4-chloro-5-phenyl-3-thienyl)-1,2,5-thiadiazolidin-3-one 1,1-dioxide	4.8	328.794	299	{Wan et al., 2007}
2are	MAN	$C_6H_{12}O_6$	lectin	alpha-d-mannose	3.28	180.156	504	{Buts et al., 2006}
2z4b	DC8	$C_{18}H_{16}F_2O_3$	estrogen receptor beta	(3as,4r,9br)-2,2-difluoro-4-(4-hydroxyphenyl)-1,2,3,3a,4,9b-hexahydrocyclopenta[c]chromen-8-ol	9.36	318.315	514	{Richardson et al., 2007}
2c94	TSF	$C_{15}H_{23}F_2N_3O_{10}P$	8,7-dimethyl-8-ribityllumazine synthase	3-(1,3,7-trihydro-9-d-ribityl-2,6,8-purinetrione-7-yl) 1,1 difluoropentane-1-phosphate	6.82	488.334	800	{Morgunova et al., 2006}
2b3f	GAL	$C_6H_{12}O_6$	glucose-binding protein	beta-d-galactose	6.03	180.156	2400	{Cunco et al., 2006}
2bbf	344	$C_8H_7N_3O$	trna guanine transglycosylase	6-amino-5,7-dihydro-imidazo[4,5-g]quinazolin-8-one	5.1	201.185	386	{Stengl et al., 2007}
2pwg	CTS	$C_8H_{15}NO_4$	sucrose isomerase	castanospermine	4.82	189.209	1112	{Ravaud et al., 2007}
2otz	1MR	C_7H_9N	lysozyme	n-methylaniline	3.63	107.153	162	{Mobley et al., 2007}
2ou0	MR3	C_7H_7N	lysozyme	1-methyl-1h-pyrrole	3.23	81.116	162	{Mobley et al., 2007}
2p2v	IPH	C_6H_6O	steroid delta-isomerase	phenol	3.87	94.111	524	{Kraut et al., 2006}
2q88	4CS	$C_6H_{10}N_6O_2$	putative abc transporter amino acid-binding protein	(4s)-2-methyl-1,4,5,6-tetrahydropyrimidine-4-carboxylic acid	5.8	142.156	257	{Hanekep et al., 2007}
1u0	URA	$C_4H_4N_2O_2$	uracil-dna glycosylase	uracil	7.06	112.087	205	{Hoseki et al., 2003}
1uz1	IFL	$C_6H_{11}NO_4$	beta-glucosidase a	(3s,4r,5r)-3,4-dihydroxy-5-(hydroxymethyl)piperidin-2-one	6.89	161.156	936	{Vincent et al., 2004}
1uz4	IFL	$C_6H_{11}NO_4$	man5a	(3s,4r,5r)-3,4-dihydroxy-5-(hydroxymethyl)piperidin-2-one	3.4	161.156	440	{Vincent et al., 2004}
1v0l	XIF-XYP	$C_{10}H_{21}NO_7$	endo-1,4-beta-xylanase a	piperidine-3,4-diol-beta-d-xylopyranose	6.32	267.276	313	{Gloster et al., 2004}
1ws4	AMG	$C_7H_{14}O_6$	agglutinin alpha chain	alpha-methyl-d-galactoside	3	194.182	612	{Arockia Jeyaprakash et al., 2005}
1y20	IAC	$C_8H_7NO_2$	glutamate [mnda] receptor subunit zeta 1	1-aminocyclopropanecarboxylic acid	5.32	101.104	292	{Inanobe et al., 2005}
2fai	459	$C_{17}H_{23}O_7$	estrogen receptor	4-[(1s,2s,5s,9r)-5-(hydroxymethyl)-8,9-dimethyl-3-oxabicyclo[3.3.1]non-7-en-2-yl]phenol	6.24	276.371	540	{Hsieh et al., 2006}
2fqw	NOS	$C_{10}H_{12}N_4O_5$	membrane lipoprotein tmpc	inosine	6.68	268.226	318	{Deka et al., 2006}
2j78	GOX	$C_6H_{12}N_2O_5$	beta-glucosidase a	(2s,3s,4r,5r)-6-(hydroxyamino)-2-(hydroxymethyl)-2,3,4,5-tetrahydropyridine-3,4,5-triol	6.42	192.17	936	{Gloster et al., 2007}
1bky	1MC	$C_3H_7N_3O$	vp39	1-methylcytosine	3.84	125.129	307	{Hu et al., 1999}
1q4w	DOU	$C_8H_8N_4O$	queuine trna-ribosyltransferase	2,6-diamino-3h-quinazolin-4-one	6.46	176.175	386	{Brenk et al., 2004}
1fcx	184	$C_{26}H_{28}O_5$	retinoic acid receptor gamma-1	6-hydroxy-(5,5,8,8-tetramethyl-5,6,7,8-tetrahydro-naphthalen-2-yl)-methyl]-naphthalene-2-carboxylic acid	7.12	388.499	235	{Klaholz et al., 2000}
1fh8	XYP-XIF	$C_{10}H_{21}NO_7$	beta-1,4-xylanase	beta-d-xylopyranose-piperidine-3,4-diol	6.89	267.276	312	{Notenboom et al., 2000}
1y93	HAE	$C_7H_5NO_2$	macrophage metalloelastase	acetoacetic acid	2.1	75.067	159	{Bertini et al., 2005}
1llw	ESM	$C_{19}H_{26}O_3$	sex hormone-binding globulin	1,3,5(10)-estratrien-2,3,17-beta-triol 2-methyl ether	8.16	302.408	189	{Avvakumov et al., 2002}
1fh9	XYP-LOX	$C_{10}H_{20}N_2O_5$	beta-1,4-xylanase	beta-d-xylopyranose-3,4,5-trihydroxy-piperidine-2-one-oxime	6.43	312.274	312	{Notenboom et al., 2000}
1s9t	QUS	$C_8H_7N_3O_5$	glutamate receptor, ionotropic kainate 2	(s)-2-amino-3-(3,5-dioxo-[1,2,4]oxadiazolidin-2-yl)-propionic acid	6.6	189.126	518	{Mayer, 2005}
1fhd	XYP-XIM	$C_{12}H_{20}N_2O_8$	beta-1,4-xylanase	beta-d-xylopyranose-5,6,7,8-tetrahydro-imidazo[1,2-a]pyridine-6,7,8-triol	6.82	320.296	312	{Notenboom et al., 2000}
1lnm	DTX	$C_{23}H_{34}O_4$	digal16	digitoxigenin	8.7	374.514	184	{Korndörfer et al., 2003}
1nli	ADE	$C_4H_5N_5$	ribosome-inactivating protein alpha-trichosanthin	adenine	3.59	135.127	248	{Shaw et al., 2003}
1ow4	2AN	$C_{16}H_{13}NO_3S$	pheromone binding protein	8-anilino-1-naphthalene sulfonate	5.68	299.344	258	{Lartigou, 2003}
1r5y	DOU	$C_8H_8N_4O$	queuine trna-ribosyltransferase	2,6-diamino-3h-quinazolin-4-one	6.46	176.175	386	{Lartigou, 2003}
1s38	MAQ	$C_8H_8N_3O$	trna guanine transglycosylase	2-amino-8-methylquinazolin-4(3h)-one	5.15	175.187	386	{Meyer et al., 2004}
1s39	AQO	$C_8H_7N_3O$	trna guanine transglycosylase	2-aminoquinazolin-4(3h)-one	7.7	161.161	386	{Meyer et al., 2004}
1sw1	PBE	$C_7H_{14}NO_2$	ssmprotection protein (prox)	1,1-dimethyl-prolinium	7.3	144.192	550	{Schieferer et al., 2004}

S 2 Table: CSAR summary data. A table showing the PDB IDs, gene names, protein and ligand information of the proteins in the 43 protein benchmark set derived from CSAR.