

S13 Table. Different criteria of importance for the choice of a suitable binding site comparison method. A plus in brackets means that the predicted binding site has to be given with the corresponding coordinates of a binding site prediction as “artificial” ligand, a simple plus denotes tools that offer a way of binding site prediction. With respect to run time evaluation, “+”, “/”, and “-” denote comparison algorithms that require several ns, μ s, or s per comparison, respectively. With respect to the scoring, a “+” was assigned to those tools where the intervals of upper and lower whiskers of active and inactive pairs did not overlap. A “/” denotes tools where the upper and lower quartile for the pairs do not overlap. With respect to other factors, tools that were clearly outperformed by many other tools were assigned a “-”.

method	BS preparation (ease)	BS preparation (completeness)	applicability toward predicted binding sites	run time	binding site definition	binding site definition (ranking)	binding site flexibility	binding site properties (ranking)	lifelike data set	visualization
reference		all data sets (S10 Fig)		Table 6	data set 1	data set 1 (S3-S5 Fig, S4 Table)	data set 2	data sets 3 and 4	data set 7	
Cavbase[1,2]	+	-	+	-	+	+	+	+	+	+
FuzCav[3]	/	+	+	+	+	/	+	+	+	-
Grim[4]	/	-	-	/	-	-	+	-	-	+
IsoMIF[5]	+	+	+	/	-	-	-	-	+	+
KRIPO[6]	+	+	-	+	-	/	+	+	+	+
PocketMatch[7]	-	-	(+)	+	-	/	+	-	+	-
ProBiS[8]	+	+	(+)	+	+	+	+	-	+	+
RAPMAD[9]	+	-	+	+	-	-	-	+	-	-
VolSite/ Shaper[10]	/	-	+	/	+	/	-	+	+	+
SiteAlign[11]	-	+	(+)	-	+	+	+	+	+	+
SiteEngine[12]	+	+	-	-	+	/	+	+	+	+
SiteHopper[13]	+	/	(+)[14]	/	+	+	+	+	+	+
SMAP[15]	+	+	(+)	-	+	+	+	+	+	+
TIFP[4]	/	-	-	/	-	-	+	-	-	-
TM-align[16]	-	+	(+)	/	+	+	+	n.d.	+	+

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