

**S2 Table**

Category	Site type	Kernel parameters
Protein stability	S	$m = 0, N = 4,  \Sigma  = 20$
Metal binding	Ca	$m = 1, N = 4,  \Sigma  = 20$
	Cd	$m = 1, N = 4,  \Sigma  = 20$
	Co	$m = 1, N = 4,  \Sigma  = 20$
	Cu	$m = 1, N = 4,  \Sigma  = 20$
	Fe	$m = 1, N = 4,  \Sigma  = 20$
	K	$m = 1, N = 4,  \Sigma  = 20$
	Mg	$m = 1, N = 4,  \Sigma  = 20$
	Mn	$m = 1, N = 4,  \Sigma  = 20$
	Na	$m = 1, N = 4,  \Sigma  = 20$
	Ni	$m = 1, N = 4,  \Sigma  = 20$
	Zn	$m = 1, N = 4,  \Sigma  = 20$
PTMs	Nglyco	$m = 0, N = 4,  \Sigma  = 20$
	Phos	$m = 0, N = 4,  \Sigma  = 20$
Catalytic sites	Cat	$m = 1, N = 4,  \Sigma  = 40$
Macromolecular binding	DNA	$m = 1, N = 4,  \Sigma  = 20$
	RNA	$m = 1, N = 4,  \Sigma  = 20$
	PPI	$m = 1, N = 4,  \Sigma  = 40$
	Hotspot	$m = 1, N = 4,  \Sigma  = 20$
Ligand binding	ADP	$m = 1, N = 4,  \Sigma  = 40$
	ATP	$m = 1, N = 4,  \Sigma  = 40$
	FAD	$m = 1, N = 4,  \Sigma  = 20$
	FMN	$m = 1, N = 4,  \Sigma  = 40$
	GDP	$m = 1, N = 4,  \Sigma  = 40$
	GTP	$m = 1, N = 4,  \Sigma  = 40$
	HEM	$m = 1, N = 4,  \Sigma  = 20$
	NAD	$m = 1, N = 4,  \Sigma  = 20$
	PLP	$m = 1, N = 4,  \Sigma  = 40$
	UDP	$m = 1, N = 4,  \Sigma  = 20$
Allosteric regulation	Allo	$m = 1, N = 4,  \Sigma  = 40$