

**Supplementary Table S4: Performance of method/parameter combinations on the PHOS dataset.**  
 Within each group of predictors, the one with the highest AUC was awarded a point.

	Serine	Threonine	Tyrosine	% win
Sequence	.	.	.	.
Sequence + bin	1	1	1	100
FEATURE	.	.	.	.
FEATURE 6-12-18	1	1	1	100
FEATURE 18	.	.	.	.
No reduction	1	1	1	100
BLOSUM 15	.	.	.	.
BLOSUM 10	.	.	.	.
BLOSUM 8	.	.	.	.
BLOSUM 6	.	.	.	.
BLOSUM 5	.	.	.	.
BLOSUM 4	.	.	.	.
BLOSUM 3	.	.	.	.
BLOSUM 2	.	.	.	.
Unlabeled	.	.	.	.
No reduction, norm	1	1	1	100
BLOSUM 15, norm	.	.	.	.
BLOSUM 10, norm	.	.	.	.
BLOSUM 8, norm	.	.	.	.
BLOSUM 6, norm	.	.	.	.
BLOSUM 5, norm	.	.	.	.
BLOSUM 4, norm	.	.	.	.
BLOSUM 3, norm	.	.	.	.
BLOSUM 2, norm	.	.	.	.
Unlabeled, norm	.	.	.	.
Selected Sequence	.	1	.	33.3
Selected FEATURE	.	.	.	.
Selected kernel	1	.	1	66.7
Selected norm kernel	.	.	.	.
Best Sequence	.	1	.	33.3
Best FEATURE	.	.	.	.
Best kernel	1	.	1	66.7
Best norm kernel	.	.	.	.