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(54) **Title:** IL2 ORTHOLOGS AND METHODS OF USE

Dilution	cRPMI	Vector	wt IL2	Ortho SQV1A	QV1A	S-N1A
1:2	4582	5592	7372	8334	5986	1936
1:4	4714	4815	3044	3668	12746	13458
1:8	4515	4175	5760	6734	28444	5552
1:16	4304	4934	4926	8212	6472	7126
1:32	4272	4132	7118	8280	5382	5582
1:64	4848	4804	5720	6360	4798	5088
1:128	4108	3988	5602	5622	5056	4822
1:256	3866	3620	4102	4934	3836	4026

Dilution	SQV1A	SQV1A	SQV1A	SQV1A	SQV1A	SQV1A
1:2	10764	13306	47596	46348	51424	49952
1:4	9400	8222	46432	45510	59212	49580
1:8	7054	6610	48264	61942	58120	78272
1:16	6204	6435	55930	57530	49876	50880
1:32	6256	6130	55312	55912	63280	78256
1:64	5184	5834	52090	49596	46482	67102
1:128	5004	5554	48410	45432	45584	48968
1:256	4582	4898	34546	35200	36750	38390

Dilution	E155	E15Q	L19V	D20L	Q22K	M23A
1:2	55882	47318	47334	46676	47674	81520
1:4	58318	59066	63932	76272	53646	62220
1:8	52790	51136	65906	53744	53805	51008
1:16	52778	51862	61572	52938	69172	51990
1:32	53860	52036	53886	59486	55392	54305
1:64	74250	52370	53740	52760	57490	51484
1:128	48674	51810	50980	51656	51362	10976
1:256	48950	47684	48896	49412	45888	44574

FIGURE 1

(57) **Abstract:** The present disclosure provides orthogonal receptors. In some embodiments, the orthogonal receptor is an orthogonal CD122. In some embodiments, the orthogonal receptor is an orthogonal human CD122 (hCD122). In some embodiments, the orthogonal receptor is an orthogonal CD122 comprising at least one STAT3 binding motifs.

[Continued on next page]

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
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