Supporting information for Roisman *et al.* (2001) *Proc. Natl. Acad. Sci. USA* **98** (23), 13231–13236. (10.1073/pnas.221290398)

Table 2. Kinetic and thermodynamic parameters for interacting mutants of IFNα2 – ifnar2

ifnar2	IFNα2	k_d[a] (s^{-1})	ΔΔG[b] (kJ/mol)	K_D[c] (μM)	ΔΔG[d] (kJ/mol)
WT	WT	0.011		0.0025	
Y45A	WT	0.075	-4.6		
T46A	WT	0.116	-5.7	0.074	-8.2
I47A	WT	0.191	-6.9	0.065	-7.8
M48V	WT			0.349	-11.9
K50A	WT	0.032	-2.5		
K55A	WT	0.032	-2.6		
H78A	WT	0.028	-2.3	0.019	-4.9
E79A	WT	0.308	-8.0	0.152	-9.9
W102A	WT	0.051	-3.7	0.034	-6.3
I105A	WT	0.097	-5.2	0.045	-6.9
D106A	WT	0.022	-1.7	0.039	-6.6
WT	R12A	0.030	-2.4		
WT	L15A	0.102	-5.4	0.069	-8.0
WT	L26A	0.050	-3.7	0.031	-6.1
WT	F27A	0.027	-2.2		
WT	L30A			1.700	-15.7
WT	D35A	0.022	-1.6		
WT	K133A	0.017	-1.1		
WT	R144A	0.043	-3.3	0.099	-8.9
WT	A145G	0.206	-7.1	0.096	-8.8
WT	M148A	0.322	-8.1	0.143	-9.8
WT	R149A			0.540	-12.9
WT	S152A	0.039	-3.1	0.016	-4.5
WT	L153A	0.119	-5.7	0.040	-6.7
Y45A	L26A	0.300	-8.2		
Y45A	**F27A**	0.060	-4.2		
Y45A	D35A	0.110	-5.7		
Y45A	R144A	0.170	-6.8		
Y45A	S152A	0.189	-7.0		
M48V	L15A			4.400	-18.0
M48V	L26A			3.650	-17.5
M48V	L30A			410.0	-28.9
M48V	**R144A**			1.300	-15.1
M48V	A145G			19.20	-21.6
M48V	M148A			25.00	-22.3
M48V	R149A			70.00	-24.6
M48V	S152A			2.450	-16.6
M48V	L153A			5.260	-18.4
K50A	R12A	0.090	-5.2		
K50A	F27A	0.083	-5.0		
K50A	**D35A**	0.015	-0.8		
K50A	K133A	0.063	-4.3		
E79A	L15A			2.500	-16.6
E79A	L30A			69.00	-24.6
E79A	R144A			6.500	-19.0
E79A	A145G			12.40	-20.5
E79A	M148A			11.20	-20.2
E79A	**R149A**			1.150	-14.8
E79A	S152A			0.990	-14.4
E79A	L153A			1.450	-15.3
H78A	R12A	0.115	-5.8	0.105	-8.1
H78A	L15A	0.320	-8.3	2.200	-9.9
H78A	L26A	0.190	-7.0	0.435	-11.6
H78A	R149A			1.650	-14.9
H78A	**S152A**	0.030	-2.5	0.017	-3.6
H78A	L153A	0.350	-8.5	0.357	-11.1

All measurements were done using RifS.

[a] Dissociation rate constant.

[b] $\Delta\Delta G$ was calculated from k_d according to eq. 2.

[c] Values of K_D were determined from the equilibrium response guided by the law of mass-action.

[d] $\Delta\Delta G$ was calculated from K_D.