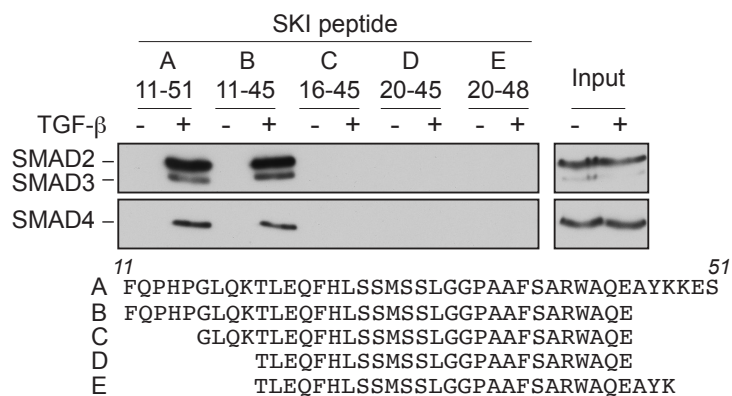


[illegible]

amino acid substitution

	A	R	N	D	C	Q	E	G	H	I	L	K	M	F	P	S	T	W	Y	V
K	34.4	75.8	39.7	41.4	23.0	60.6	47.4	20.6	34.6	17.2	20.8	34.1	7.6	7.1	-6.9	24.6	20.4	7.0	7.5	7.0
T	27.7	7.1	-5.1	8.3	6.3	1.7	-3.3	0.3	2.5	50.0	12.3	-4.7	-1.4	-0.5	-11.7	7.1	63.1	-2.9	-0.1	30.3
L	-16.3	2.8	-3.0	-4.9	-5.2	3.0	-8.7	-8.5	-5.0	31.4	48.3	-7.9	-5.6	5.3	-10.3	-5.4	-5.2	-8.6	-8.8	4.8
E	63.6	127.3	89.6	75.1	58.8	133.6	100.4	62.2	48.8	36.6	66.0	144.0	99.7	74.9	-4.1	67.5	54.5	75.0	60.1	39.6
Q	51.9	49.2	59.6	93.6	39.2	111.8	89.1	32.1	57.5	31.1	60.6	56.3	80.5	50.7	-3.3	46.3	25.1	91.0	32.1	5.7
F	1.4	-3.7	1.2	-1.0	-4.7	-6.1	-6.9	-5.3	15.2	2.9	29.2	2.8	1.8	90.2	-4.8	3.9	-5.0	-1.2	25.8	-2.7
H	74.0	83.9	61.6	15.1	67.9	106.2	46.9	66.1	84.4	108.5	140.6	154.2	131.9	121.1	-2.8	63.1	44.9	52.5	62.0	47.1
L	24.0	73.2	26.0	2.1	30.2	91.6	44.3	17.1	16.5	79.4	85.2	149.1	121.0	136.9	-0.4	29.1	25.7	6.6	24.9	39.1
S	49.4	65.4	25.8	3.7	13.6	91.6	25.5	23.5	48.4	92.9	102.5	76.3	64.2	146.6	5.5	61.0	23.1	28.9	33.5	42.4
S	59.2	24.2	-0.4	2.2	3.8	-3.2	-2.2	9.4	3.5	4.3	9.1	28.2	13.2	16.8	9.9	81.1	0.3	-0.7	0.4	-1.8
M	42.3	117.3	37.2	12.9	44.8	132.9	41.1	86.7	63.8	100.2	104.1	175.1	150.8	98.4	66.4	58.1	52.2	20.6	5.8	42.8
S	59.1	142.4	117.2	80.9	87.5	119.1	76.6	96.2	122.7	107.7	119.9	168.9	151.0	172.7	10.8	108.1	67.2	82.1	97.4	54.8
S	22.8	71.6	73.2	12.7	10.8	43.1	7.0	80.6	18.9	23.1	38.2	52.7	54.6	60.1	8.8	104.2	35.6	1.6	7.0	3.5
L	7.3	26.9	17.0	6.0	9.8	6.2	-0.2	6.4	12.1	65.0	150.4	49.3	23.9	22.5	17.0	15.7	26.5	28.8	33.4	14.4
G	79.4	144.8	79.5	74.3	52.6	144.6	66.8	139.9	103.9	113.2	108.7	166.7	133.7	116.2	14.6	104.1	49.9	77.8	41.0	47.1
G	9.9	9.2	4.3	35.5	18.3	15.1	13.5	138.2	15.5	42.0	13.1	23.2	20.4	25.5	16.6	14.3	9.5	13.6	4.1	3.9
P	31.8	72.5	6.5	10.7	26.3	32.1	8.8	20.6	26.9	33.1	64.9	127.5	20.3	13.7	125.9	15.6	13.9	13.6	14.1	26.3

Skl amino acid sequence 19-35