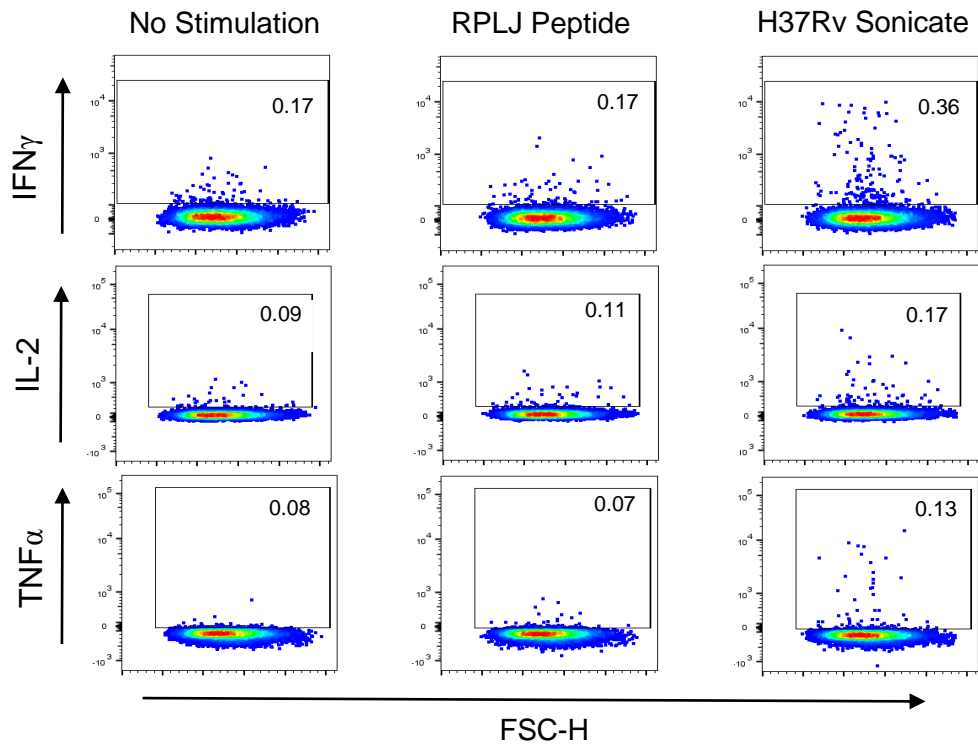
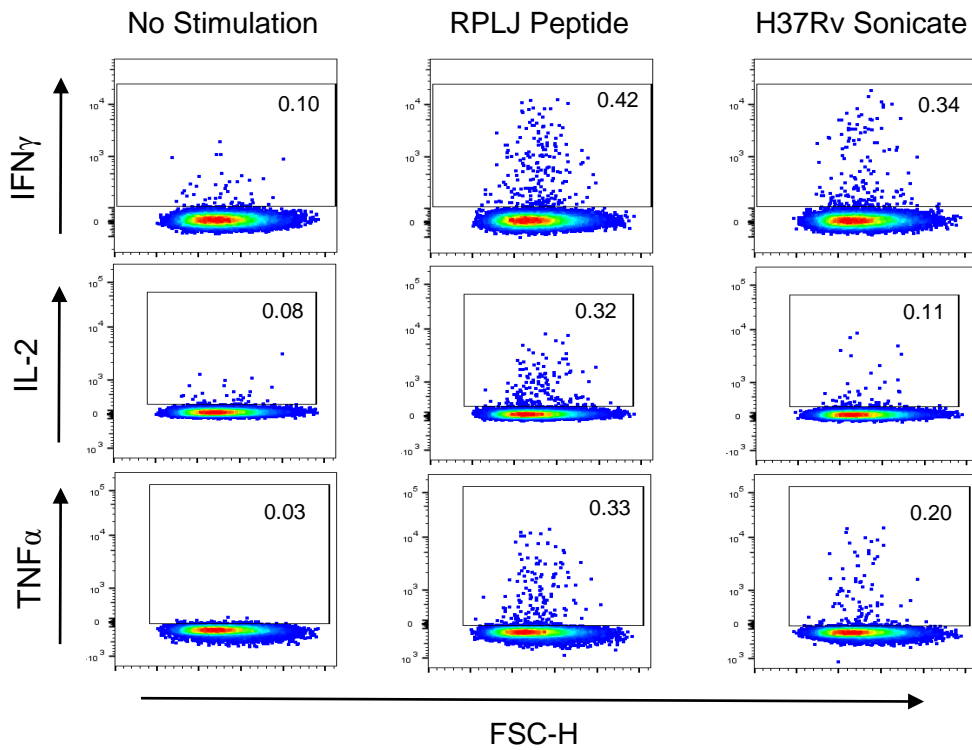


**Supplemental Figure S1. Caliper electrophoresis of 57 mycobacterial ribosomal proteins.** Mycobacterial ribosomal proteins expressed in *E. coli* (strain BL21) and purified by affinity tag purification were loaded into a LabChipGX caliper electrophoresis analyzer (PerkinElmer). Results were analyzed against a standard protein ladder and resulting bands were assessed for both purity and molecular weight. The images shown are representative of two separate experiments and protein purifications.

A



B



**Supplemental Figure 2. Samples of dot plots of FACS analyses of intracellular**

**cytokine staining.** Groups of C57BL/6 mice (n = 4) were immunized with  $5 \times 10^6$  CFU s.c. BCG only (A), or were immunized similarly with BCG followed four weeks later by two administrations of RplJ protein (25  $\mu$ g) and CpG-ODN 1826 (20  $\mu$ g) s.c. two weeks apart (B). Four weeks post final immunization, single cell suspensions of splenocytes were re-stimulated with RplJ<sub>TB146-160</sub> peptide (10  $\mu$ g/ml) or H37Rv sonicate (10  $\mu$ g/ml) as indicated. After 6h of re-stimulation, cells were fixed, permeabilized and stained for cytokines as described in Methods, and analyzed by FACS. Samples of dot plots from one representative mouse in each group portraying no re-stimulation, re-stimulation with RPLJ peptide, and re-stimulation with H37Rv sonicate are shown.

Rv #	RPS/L	F-Primer	R-Primer	MW
Rv0053	rpsF	TACTTCCAATCCAATGCCCGTCCATACGAAATCATGGTCATC	TTATCCACTTCCAATGTTAGTGCTGTGCGGTGCGCATTAC	54.72
Rv0055	rpsR1	TACTTCCAATCCAATGCCGCCAAGTCCAGCAAGCGGC	TTATCCACTTCCAATGTTACCACCCGAAGACGTAAGG	53.33
Rv0056	rplI	TACTTCCAATCCAATGCCAAGCTCATTCTCACGGCCGATG	TTATCCACTTCCAATGTTAGCTGTGCGCCACGACGTC	59.95
Rv0105	rpmB1	TACTTCCAATCCAATGCCTCGCCCGTCCAAATCAC	TTATCCACTTCCAATGTTACAGGATCGCCCGGTTG	54.31
Rv0634	rpmG2	TACTTCCAATCCAATGCCCGTCCAGTCAAGCTGC	TTATCCACTTCCAATGTTACCAGCTCTCGCGGTG	50.28
Rv0640	rplK	TACTTCCAATCCAATGCCGCCGGAAGAAGAAGTGC	TTATCCACTTCCAATGTTATTCGACGGTGATGCCATCG	58.79
Rv0641	rplA	TACTTCCAATCCAATGCCGCAAGACCAAGCAAGGCATATCG	TTATCCACTTCCAATGTTACTCCCGCGAAGTTGCG	68.54
Rv0651	rplJ	TACTTCCAATCCAATGCCCGCAGGGTGCACAAGGCC	TTATCCACTTCCAATGTTACTCGGCTGAGTCTGGGCC	62.26
Rv0652	rplL	TACTTCCAATCCAATGCCGCAAAGCTCTCCACCGACG	TTATCCACTTCCAATGTTACTTGACGGTGACGGTGGCG	57.22
Rv0682	rpsL	TACTTCCAATCCAATGCCCAACCCATCCAGCAAGCTGG	TTATCCACTTCCAATGTTAGCCCTTCTCCTCTTAGCGC	57.63
Rv0683	rpsG	TACTTCCAATCCAATGCCCCACGCAAGGGGGCCG	TTATCCACTTCCAATGTTACCAGCGATAATGCGCAAAGGC	61.38
Rv0700	rpsJ	TACTTCCAATCCAATGCCCGGGGACAGAAGATCCGCATC	TTATCCACTTCCAATGTTACTGGATGTTGACGTGCGACGC	55.21
Rv0701	rplC	TACTTCCAATCCAATGCCGCACGAAAGGGCATTCTCGG	TTATCCACTTCCAATGTTACTTCTCACCTCGTTTGATCGCAC	66.88
Rv0702	rplD	TACTTCCAATCCAATGCCGCTGCGCAAGAGCAGAAGAC	TTATCCACTTCCAATGTTAGCGCGAAACCTCTCGGAC	67.53
Rv0703	rplW	TACTTCCAATCCAATGCCGCGACGCTCGCTGACCC	TTATCCACTTCCAATGTTAGCTTCTCCTGAAAGGAAAGCCG	54.74
Rv0704	rplB	TACTTCCAATCCAATGCCCAATTCGCAAGTACAAGCCAC	TTATCCACTTCCAATGTTAACGCGAGTCTCTTGCCG	74.36
Rv0705	rpsS	TACTTCCAATCCAATGCCCCACGACGCTGAAGAAGG	TTATCCACTTCCAATGTTATCGCGCTGTGCTCTTCGG	54.59
Rv0706	rplV	TACTTCCAATCCAATGCCACTGCGGCTACTAAGGCTACC	TTATCCACTTCCAATGTTAGTCTGACGCTCCCTTCGCTG	64.17
Rv0707	rpsC	TACTTCCAATCCAATGCCGCGCAAAAGATCAATCCGCATGG	TTATCCACTTCCAATGTTAGCTCTCCGTGCTCGCG	73.81
Rv0708	rplP	TACTTCCAATCCAATGCCCTGATTCCCGTAAAGTAAACATCG	TTATCCACTTCCAATGTTAGAACTTCTCCTCTGAGTAAATAATG	59.48
Rv0709	rpmC	TACTTCCAATCCAATGCCCGAGTGGGTGTCTCGCCG	TTATCCACTTCCAATGTTACGATTCCTTACCATCGGGCC	52.64
Rv0710	rpsQ	TACTTCCAATCCAATGCCATGGCAGAGGCTAAGACCGG	TTATCCACTTCCAATGTTACTTAGCCTTCTCGAGGATCTCG	58.66
Rv0714	rplN	TACTTCCAATCCAATGCCATTCAGCAGGAATCGCGGCTG	TTATCCACTTCCAATGTTACACACCTCCGGGGCCAG	57.21
Rv0715	rplX	TACTTCCAATCCAATGCCAAGTCCACAAAGGGCGACCC	TTATCCACTTCCAATGTTAAATGTCCTTGGCGTTCGCGTTG	55.26
Rv0716	rplE	TACTTCCAATCCAATGCCACCACTGCACAGAAGTTCACG	TTATCCACTTCCAATGTTAGTCTCCTGAAAGGAAAGCCG	64.8
Rv0717	rpsN1	TACTTCCAATCCAATGCCGCAAGAAGGCACTGGTCAAC	TTATCCACTTCCAATGTTACCAGTGTCTTCTGACG	50.61
Rv0718	rpsH	TACTTCCAATCCAATGCCACGATGACGGACCCGATCG	TTATCCACTTCCAATGTTACCAGACATATGCGAGGACTTCG	58.2
Rv0719	rplF	TACTTCCAATCCAATGCCTCGGTATTGGTAAGCAGCCG	TTATCCACTTCCAATGTTACTACTGTCTTCCGACCTTGC	63.16
Rv0720	rplR	TACTTCCAATCCAATGCCGCGCAATCAGTTTCCGCGAC	TTATCCACTTCCAATGTTAGAACTCAATCCGTTCTCGCGTG	56.97
Rv0721	rpsE	TACTTCCAATCCAATGCCGCGGACGACCCGGCC	TTATCCACTTCCAATGTTATATGCTTACTCGGCAAAAGCCG	66.67
Rv0722	rpmD	TACTTCCAATCCAATGCCTCACAGTGAAGATCACCCAGG	TTATCCACTTCCAATGTTATGCTTCCCTCCGGTCTG	51.13
Rv0723	rplO	TACTTCCAATCCAATGCCACGCTCAAGTGCATGACCTG	TTATCCACTTCCAATGTTAGAGCTCGGTGGCTGAACCG	59.32
Rv0979	rpmF	TACTTCCAATCCAATGCCGCTGTGCCAAAGCGCAGAAAG	TTATCCACTTCCAATGTTAGCGCTTACGAAATCGATGAGGC	50.29
Rv1015	rplY	TACTTCCAATCCAATGCCCGCAAAATCCGCAAGCAACCG	TTATCCACTTCCAATGTTACTCGGACTCGCCAGCGG	66.23
Rv1298	rpmE	TACTTCCAATCCAATGCCAAATCTGCAATTCGCGCATATGAG	TTATCCACTTCCAATGTTATGCTTATTCGCGGTTGAAACCGCTTG	52.54
Rv1630	rpsA	TACTTCCAATCCAATGCCCGGATCCACCGTCAAC	TTATCCACTTCCAATGTTAAGCGCTGCCGGGAGTTTTTC	96.99
Rv1642	rplM	TACTTCCAATCCAATGCCCCAAAGGCCAAGCCACAG	TTATCCACTTCCAATGTTAGCGTTCAGCAACGACGTCG	51.00
Rv1643	rplT	TACTTCCAATCCAATGCCGCAACGCTAAAGCGGGCG	TTATCCACTTCCAATGTTAGCGGCTCCCGCGGAG	58.31
Rv2055	rpsR2	TACTTCCAATCCAATGCCCGCCCAAAATCCGCGCG	TTATCCACTTCCAATGTTATGGGCACAGTGCAGCGCG	53.48
Rv2056	rpsN2	TACTTCCAATCCAATGCCGCAAGAAGTCCAAGATCGTCAAG	TTATCCACTTCCAATGTTACCAGCTGGCTCCGCGAC	55.22
Rv2057	rpmG1	TACTTCCAATCCAATGCCGCGCGCACCGACATCCG	TTATCCACTTCCAATGTTAGCGTCTCCTCGCGAAAGTCC	50.37
Rv2058	rpmB2	TACTTCCAATCCAATGCCTCCGCCACTGCCAAGTCAC	TTATCCACTTCCAATGTTAGATCCGCTGCCCTGGC	52.88
Rv2412	rpsT	TACTTCCAATCCAATGCCGCAACATCAAGTCGACGACG	TTATCCACTTCCAATGTTAGAGCTTGTGAGCGCCTGG	53.19
Rv2441	rpmA	TACTTCCAATCCAATGCCGCACACAAGAAGGGGGCTTC	TTATCCACTTCCAATGTTAGGCGAGTGGTGAACCGACG	52.75
Rv2442	rplU	TACTTCCAATCCAATGCCATGGCGACTACGCAATCGTC	TTATCCACTTCCAATGTTATGCGATGCCGTGACCTTC	54.93
Rv2785	rpsO	TACTTCCAATCCAATGCCGCGTGCAGCCGAGCAAAAAAG	TTATCCACTTCCAATGTTATGCGCAGCAGGCCCAAGC	54.26
Rv2890	rpsB	TACTTCCAATCCAATGCCGCGTAGTACCATGAAGCAG	TTATCCACTTCCAATGTTAGGATGCATGTGGTTGGTTG	74.88
Rv2904	rplS	TACTTCCAATCCAATGCCAACCAGCTGGACTTCTGTCG	TTATCCACTTCCAATGTTAGCGCTTCTCCTTGATCTTGGC	56.80
Rv2909	rpsP	TACTTCCAATCCAATGCCGCTGTGAAGATCAAGTCACTCG	TTATCCACTTCCAATGTTAGCTTTCGCGCTCAGCTCG	61.22
Rv3442	rplI	TACTTCCAATCCAATGCCACCGAAACCCACCGCCG	TTATCCACTTCCAATGTTAGCGCTGTCTACTGGGGC	60.22
Rv3443	rplM	TACTTCCAATCCAATGCCCCACGTAACGCGCCAAAG	TTATCCACTTCCAATGTTATGCGCACCTGCTGTGAGC	60.12
Rv3456	rplQ	TACTTCCAATCCAATGCCCCAAAGCTACCAAGGGCC	TTATCCACTTCCAATGTTAATCTCGGGGGCTCTGCG	63.26
Rv3458	rpsD	TACTTCCAATCCAATGCCGCTGTACACCGGACCCG	TTATCCACTTCCAATGTTACTTGTAGTACTCGACGATCAG	67.26
Rv3459	rpsK	TACTTCCAATCCAATGCCACCCAGCAAAAAAGGGCCG	TTATCCACTTCCAATGTTAGACGCGCCGGCGCTTG	58.57
Rv3460	rpmM	TACTTCCAATCCAATGCCGCTGACTGCTCGGCGTC	TTATCCACTTCCAATGTTACTAGCTTCTCTTCTGCTGC	58.13
Rv3461	rpmJ	TACTTCCAATCCAATGCCAAGGTAACCCGACGCTCAAGC	TTATCCACTTCCAATGTTAGCGCTTCTGTTGTGACG	48.13
Rv3924	rpmH	TACTTCCAATCCAATGCCACCAAGGGCAAAAGGACCTTCC	TTATCCACTTCCAATGTTAAGCACTGAGCGTGCGCCG	49.41
GST	N/A	TACTTCCAATCCAATGCCGCTGTGCTGATCGAAGGGC	TTATCCACTTCCAATGTTAACCCCTGCACCAAAACCCCTTG	81.74

**Supplemental Table S1. List of primers for amplification of 57 ribosomal proteins from Mtb gDNA and expected molecular weight of purified protein products.** Nucleotide primers for amplification for selected mycobacterial genes from Mtb gDNA are listed. Primers were synthesized by Sigma-Aldrich at 70% purity. Expected molecular weight (MW) of the proteins from produced from the expression vector pmscg9 are shown in the column on the far right.

Rv0652 Top 33			Rv0683 Top 33		
#	Residue Range	Peptide	#	Peptide Name	Peptide
1	39-53	PVAVAAAGAAPAGAA	53	15-Jan	MPRKGPAKRPVND
2	30-44	ETFEVTAAPVAVAA	54	139-153	EDTHKMAEANRAFAH
3	34-48	VTAAAPVAVAAAGAA	55	80-94	VGGATYQVPVEVRPD
4	26-40	KKFEETFEVTAAPV	56	16-30	PVYGSQVLTVLNKV
5	43-57	AAAGAAPAGAAVEAA	57	85-99	YQVPVEVRPDRSTTL
6	116-130	AKAKLEAAGATVTVK	58	42175	PAPKRPVNDPVVGS
7	93-107	AKDLVDGAPKPLEK	59	122-136	NEILDASNGLGASVK
8	47-61	AAPAGAAVEAAEEQS	60	26-Dec	LVNDPVVGSQVLVTQL
9	22-36	SDFVKKFEETFEVTA	61	76-90	RSRRVGGATYQVPVE
Rv2904 Top 33			62	89-103	VEVRPDRSTTLALRW
#	Peptide Name	Peptide	63	39-53	AERIVYGALEQARDK
10	69-83	VERTFPVHSPNIDHI	64	61-75	TLKRALDNVVKPALEV
11	15-29	DIPAFNPGDTINVHV	Rv0700 Top 33		
12	65-79	YGVGVERTFPVHSPN	#	Peptide Name	Peptide
13	73-87	FPVHSPNIDHIEVVT	65	32-46	TGASVVGPVPLPTEK
14	36-50	KERLQVFKGVVIRRQ	66	72-86	RUIDIDPTPKTVDA
15	61-75	RKESYGVGVERTFPV	67	28-42	TVVRTGASVVGPVPL
16	45-59	VVIRRQGGGIREFTT	68	36-50	VVGPVPLPTEKNVYC
17	19-33	FNPGDITNVHVKIVIE	69	24-38	KIVETVVRTGASVVG
Rv0707 Top 33			70	76-90	IIDPTPKTVDALMRI
#	Peptide Name	Peptide	71	26-Dec	AYDHEAIDASARKIV
18	210-224	GKRELAAPAGADR	72	85-99	DALMRIDLPAASVDVN
19	256-270	GEEAAPDAAAPVEAQ	Rv0701 Top 33		
20	214-228	LAAAAPAGADRRPRE	#	Peptide Name	Peptide
21	234-248	RPRRSAGSTTATGT	73	25-39	PVTVVKAGPNVVTRI
22	206-220	DIVGGKRELAAPAA	74	66-80	LTGQYTAAGVNPRRY
23	64-78	RVDIHTARPVIGR	75	70-84	YTAAGVNPVRYLAE
24	252-266	RAAGGEEAAPDAAAP	76	130-144	HGFRGQASHGAQAV
25	125-139	NRVAFRRAMRKAIQS	77	126-140	TMKRHGRGQASHG
26	227-241	RERPSTGTRPRRSAS	78	147-161	RPGSIGGCATPARVF
27	166-180	EFYREGRVPLHLTRA	79	46-63	AVQLAYGEISPRKVN
28	160-274	APDAAAPVEAQSTES	80	155-169	ATPARVFKGTRMAGR
29	247-261	GTADAGRAAGGEEAAP	81	62-76	VNKPLTGQYTAAGVN
30	238-252	SGASGTTATGTDAGR	82	134-148	GQGASHGAQAVHRRP
31	135-149	KAIQSAMRQPNVKGI	83	190-204	GVLLIKGAVPGRGTGG
32	182-196	IDYGLYEAKTTFGRI	84	21-35	NRVVPVTVKAGPNV
33	162-176	MSRSEFYREGRVPLH	85	53-67	AYGEISPRKVNKPLT
34	153-167	CSGRLLGAEMSRSEF	86	90-104	DAATEYQVQDELTAE
35	131-145	RAMRKAIQSAMRQPN	87	117-131	TSKGGKFGATMKRHG
36	101-115	NILEVKNPESQAQLV	88	159-173	RVFKGTRMAGRMGND
37	223-237	DRPRRERPSTGTRPRR	89	17-31	FDESNRVVPVTVVKA
Rv2058c Top 33			Rv0714 Top 33		
#	Peptide Name	Peptide	#	Peptide Name	Peptide
38	34-48	QQRYYLPSEGRRIIR	90	108-122	EKRFMKIISLAPEVL
39	21-Jul	VTGRKPGFGNTVSHS	91	73-87	DGSYKFDENAAVII
40	38-52	YYLPSEGRRIIRLRSV	92	27-41	GSSRRYAGIGDVIVA
41	30-44	SPNIQQRYYLPSEGE	93	41-55	ATVKDAIPGGNVKRG
42	23-37	RRSRRRSPNIQQR	94	77-91	IKFDENAIVIKPDN
Rv0640 Top 33			95	37-51	DVIVATVKDAIPGGN
#	Peptide Name	Peptide	96	52-66	VKRGDVKAVVVRTV
43	26-Dec	KLQIVAGQANPAPPV	97	93-107	PRGTRIFGVPVGRFLR
44	67-81	SFTFTLTKPPAAKLL	98	20-34	LCIRVLGGSSRRYAG
45	16-30	VAGQANPAPPVGPAL	99	33-47	AGIGDVIVATVKDAI
46	39-53	EFCKAYNAATENQRG	Rv0682 Top 33		
47	20-34	ANPAPPVGPALGQHG	#	Peptide Name	Peptide
48	63-77	YEDRSFTFTLTKPPA	100	24-Oct	KRRDKISKVKTAAL
49	80-94	LLKAAAGVAKGSAEP	101	14-28	DKISKVKTAALKGSP
50	71-85	TLKTPPAKLLLKAA	102	18-32	KVKTAALKGSPQRRG
51	125-139	AAAKIAGTARSMGI	103	30-44	RRGVCTRVTYTTPKK
52	76-90	PAKLLKAAAGVAKG	104	34-48	CTRVYTTTPKKPNSA
			105	38-52	YTTTPKKPNSALRKV
			106	57-71	LTSQVEVTAYIPGEG
			107	61-75	VEVTAYIPGEGHNLQ
			108	65-79	AYIPGEGHNLQEHSM
			109	90-104	LPGVRYKIIRGSLDT

**Supplemental Table 2. Table of peptides included in selected immunogenic ribosomal peptide library.** Peptides selected from 10 Mtb immunogenic ribosomal proteins based on strength of binding to MHCII I-A<sup>b</sup> are listed. Peptides were synthesized as crude material (estimated 70-80% purity) by Mimotopes (Mulgrave, Victoria, Australia). Peptides were reconstituted in DMSO and used at a final concentration of 10 µg/ml.



Peptide #	Peptide Sequence	Protein	Peptide Start
1	FDAAITPDQMAKVG	rplA	111
2	VTVVKAGPVVTRIR	rplC	26
3	VAGQFAAGVNPVRRH	rplC	66
4	GFRGGQGAHQAAQAVH	rplC	131
5	EALQQEFNYANVMQI	rplE	21
6	EFNYANVMQIPGVVK	rplE	26
7	GRNVLPRGLAIVAS	rplI	26
8	GDTGKLFQSVTAADV	rplI	86
9	KAHISVGTHTPVTVK	rplI	121
10	ADIAEQFKASTATVY	rplJ	11
11	QFKASTATVVEYRG	rplJ	16
12	IEGLDFLAGPTAIA	rplJ	66
13	ELFAGPTAIAFVKG	rplJ	71
14	KAAGLFNAPASQVAR	rplJ	146
15	FNAPASQVARLAAAL	rplJ	151
16	RSFTFALKTPPAALK	rplK	66
17	PGAAAGGAAEAEEQ	rplL	46
18	KEAKDLVDSAPKPLL	rplL	91
19	SDVVGLRLASAAATL	rplM	21
20	EKFMKIVLSAPEVL	rplN	108
21	GSAREAITAAGGSAT	rplO	131
22	AREAITAAGGSATEL	rplO	133
23	EQRGIASGGTSVDFG	rplP	16
24	QLIAERAKAAGVETV	rplR	86
25	VFDRTGGTYGGRIAA	rplR	101
26	GTYGGRIALADAA	rplR	106
27	WISRIANAARANDIT	rplT	61
28	AELAVSDPAAFATLV	rplT	96
29	MSTVTEFSPATAKAR	rplV	1
30	TVTTEFSPATAKARV	rplV	3
31	KARYVRSATKARRV	rplV	13
32	EALDILRWAPQAASE	rplV	38
33	PVAKVIASAAANAQN	rplV	53
34	PPKQKGASAAARSR	rplV	118
35	SARSRRAQSGSKAAAT	rplV	128
36	RAIVKLAAGSKPIDL	rplW	81
37	MAKTANIPNKLTARV	rplY	1
38	AVLRSHGTNAILTD	rplY	56
39	LLVNVVVEAPSAEAL	rplY	176
40	DDTLFALAPGAVEFG	rpmA	56
41	KTYLPSGERRILRL	rpmB	36
42	RRAQWKAEAPGLVTM	rpmF	16
43	DIGLRFGLPASLVEM	rpsA	141
44	EDPWRFHARTHAIQ	rpsA	281
45	QMEKFAAAEAANA	rpsA	431
46	AAAEAEANAPVSNQ	rpsA	436
47	AADASAEAGAAPESS	rpsB	259
48	KRELAAPASDRPR	rpsC	211
49	GRAATSDAPAAAGTAA	rpsC	250
50	SDAPAAAGTAAAEAP	rpsC	255
51	AGTAAAEAPAEASTE	rpsC	260
52	GTAAAEAPAESTES	rpsC	261
53	MARYTGPATKRSRRL	rpsD	1
54	VVYRGLARTRRMAR	rpsD	96
55	KNFRVPLIGSTITH	rpsE	94
56	ASPGTGVLAGGAARA	rpsE	124
57	GVIAGGAARAVLECA	rpsE	129
58	LPIEDVAPAGMLKAR	rpsE	184
59	RESELAIAAAREGS	rpsE	199
60	ESELAIAAAREGSA	rpsE	200
61	MPRKGPAPKRLVND	rpsG	1
62	KAGFLTRDPAIERK	rpsI	120
63	RTGASVVGVPVLPTE	rpsJ	31
64	DPQGNVIAWASSGHV	rpsK	45
65	SSGHVGFKGSRKSTP	rpsK	55
66	GFKGSRKSTPFAAQL	rpsK	60
67	RKSTPFAAQLAENA	rpsK	65
68	RVYTTTPKPNALSRL	rpsL	36
69	SSPERRAAVSAQR	rpsN	36
70	AQYWLGVGAQPTTEPV	rpsP	56
71	GVGAQPTTEPVALLK	rpsP	61
72	AEAPAEAAEAPAEAA	rpsP	136
73	EAEAPAEAAEAPAE	rpsP	134
74	MSKTSKAYRAAAKV	rplA	1
75	KAYRAAAKVDRTNL	rplA	6
76	DRTNLYLPQAAKLA	rplA	16
77	GEKADAAVAAGADV	rplA	81
78	GGWLEFDAIATPDQ	rplA	106

79	MAIRKYKPTTPGRRG	rplB	1
80	LSQGDVVESGANADI	rplB	111
81	TMKRHGFRRGQASHG	rplC	126
82	RRPGSIIIGCATPARV	rplC	146
83	ALNAYIAANTTSEE	rplD	206
84	AVIAANTTSEEVA	rplD	209
85	GVGNVYFLGAEQAVF	rplE	131
86	MSRIGKQPIPVPAV	rplF	1
87	GSNLEFALGYSHPVV	rplF	101
88	FALGYSHPVIEAPE	rplF	106
89	GITFAVQAPTFTVTS	rplF	121
90	NEIKAAIEALGPIAL	rplI	66
91	AI EALGPIALPVKTS	rplI	71
92	PTAIFVTGEPVDAA	rplJ	76
93	KGGYMDGHPLTVAEV	rplJ	106
94	LAGAMKGNLAKAAGL	rplJ	136
95	IKLQIVAGQANPAPP	rplK	11
96	VAGQANPAPPVGPAL	rplK	16
97	KKFEETFEVTAAPV	rplL	26
98	TFEVTAAPVAVAAA	rplL	31
99	AAAPVAVAVAAAGAAPA	rplL	36
100	AVAAAGAAPAGAAVE	rplL	41
101	AKAKLEAAGATVTVK	rplL	116
102	LRGKHKPTFAPNVDS	rplM	36
103	KLRVYAGPEHPHSAQ	rplM	121
104	LHDLRPARGSKIART	rplO	5
105	RVLFELYPNEGVAR	rplP	101
106	EGVARAALTRAHKL	rplP	111
107	NRARRVAAAQAKAKK	rplQ	126
108	AKAKKAAAMPTTEESE	rplQ	136
109	LVNDLNGTVAASS	rplR	46
110	NGTTVAASSIEADV	rplR	51
111	LRWAPQAASGPVAKV	rplV	46
112	QAASGPVAKVIASAA	rplV	51
113	IASAAANAQNNGGDL	rplV	61
114	VATVYADQGTAKRI	rplV	81
115	KAASKVGATAPAKKA	rplV	140
116	VGATAPAKKAAAKAP	rplV	145
117	PAKKAAPAKKAPAKK	rplV	150
118	AAKAPAKKAPASSGV	rplV	155
119	KKTPAKKAPAKKAPA	rplV	170
120	KKAPAKKAPAKASET	rplV	175
121	KKAPAKASETSAAKG	rplV	180
122	VEKIFAVKVASVNTA	rplW	46
123	AVKVASVNTANRQOK	rplW	51
124	DYAAVLRHSGTNAVL	rplY	51
125	TAGQIALPAGVSLUS	rplY	156
126	VNVVVKAPTAEELEG	rplY	176
127	AAVEAGEEAAGEESE	rplY	201
128	GRRRAARAGSAPAHF	rpmB1	66
129	VLLDIGYKTEGVIPA	rpsA	51
130	IRDMAKVPSAIVVVD	rpsB	151
131	QELLASATASATPSA	rpsB	251
132	SATASATPSATATT	rpsB	256
133	ALTDAPAGATEPTTD	rpsB	271
134	DIVGGKRELAIAAPA	rpsC	206
135	RRSGASGTTATGTD	rpsC	236
136	GHFNVNGVHVNPSY	rpsD	116
137	VLLRPASPGTGVIAQ	rpsE	125
138	VVIDVKAAPATVSEL	rpsF	61
139	MTETTPAPQTPAAPA	rpsI	1
140	PAPQTPAAPAGPAQS	rpsI	6
141	PAAPAGPAQSFVLER	rpsI	11
142	GRLVAAAPKPSKLEV	rpsP	91
143	SKLEVFNAALAAADG	rpsP	101
144	FNAALAAADGGPTTE	rpsP	106
145	KKSPAKKAAKAEP	rpsP	126
146	KKAAPAEAPAPQPEQ	rpsP	131
147	MAEAKTGAKAAPRVA	rpsQ	1
148	TGAKAAPRVAKAAKA	rpsQ	6
149	APRVAKAAKAAPKKA	rpsQ	11
150	KAAPKKAAPNDA	rpsQ	16
151	APNDAEIIGAANAAN	rpsQ	26
152	QAANKKSALAQALNK	rpsT	71
153	AANKKSALAQALNKL	rpsT	72

**Supplemental Table 3. Table of peptides included in total ribosomal peptide library.**

Peptides selected from all 57 mycobacterial ribosomal proteins based on strength of binding to MHCII I-A<sup>b</sup> are listed. Peptides were synthesized as crude material (estimated 70-80% purity) on a small scale (~1 mg) by A&A labs (San Diego). Peptides were reconstituted in DMSO and used at a final concentration of 10 µg/ml per peptide.