S3 Table. Type II toxin-antitoxin systems of *M. tuberculosis* discussed in this article.

№	Family	Toxin-antitoxin system	Toxin (locus_tag)	Antitoxin (locus_tag)	Functions
1	ND[1]	Novel	rv1546	rv1545	Not inhibit the growth of *M. smegmatis*[6]
2			rv2653c	rv2654c	Inhibit the growth of *M. smegmatis*[6]
3			rv0910	rv0909	Inhibit the growth of *M. smegmatis*, but the mechanism is unknown[6]
4	MazEF	mazEF1	rv0456A	rv0456B	Not inhibit the growth of *M. smegmatis*[6]
5		mazEF2	rv0659c	rv0660c	
6		mazEF3	rv1102c	rv1103c	Inhibit the growth of *M. smegmatis*[6]
7		mazEF4	rv1495	rv1494	Not inhibit the growth of *M. smegmatis*[6]
8		mazEF5	rv1942c	rv1943c	Inhibit the growth of *M. smegmatis*[6]
9		mazEF6	rv1991c	rv1991A	
10		mazEF7	rv2063A	rv2063	
11		mazEF8	rv2274c	rv2274A	Not tested
12		mazEF9	rv2801c	rv2801A	Inhibit the growth of *M. smegmatis*[6]
13		mazEF10[2]	rv0299	rv0298	
14	RelBE	relBE1	rv1246c	rv1247c	
15		relFG (relBE2)	rv2866	rv2865	
16		relJK (relBE3)[3]	rv3358	rv3357	Inhibit the growth of *M. smegmatis*[4]
17	ParDE	parDE1	rv1959c	rv1960c	Not inhibit the growth of *M. smegmatis*[6]
18		parDE2	rv2142c	rv2142A	Not tested for *M. smegmatis*, but inhibit the growth of *E. coli*[4]
19	HigAB	higAB1	rv1955	rv1956	Inhibit the growth *M. smegmatis*, expression in hypoxic conditions[6]
20		higAB2[2]	rv2022c	rv2021c	Not tested
21		higAB3[2]	rv3182	rv3183	Not inhibit the growth of *M. smegmatis*[4]
22	VapBC	vapBC1[2]	rv0065	rv0064A	

23		vapBC2	rv0301	rv0300	Inhibit the growth of *M. smegmatis*, by disrupting translation due to destruction of RNA[6]
24		vapBC3	rv0549c	rv0550c	Inhibit the growth of *M. smegmatis;* induction in macrophages; induced by hypoxia[6], SDS stress[7], during adaptation to nutrient starvation[12]
25		vapBC4	rv0595c	rv0596c	Not inhibit the growth of *M. smegmatis*[6]; induced during adaptation to nutrient starvation[12], macrophage infection[11] and by SDS stress[7]
26		vapBC5	rv0627	rv0626	Not inhibit the growth of *M. smegmatis*[6] or *E. coli*[13], but inhibit the growth of *M. tuberculosis*; toxin has RNase activity[14]
27		vapBC6	rv0656c	rv0657c,	Not inhibit the growth of *M. smegmatis*[6]
28		vapBC7	rv0661c	rv0662c	
29		vapBC8	rv0665	rv0664	
30		vapBC9	rv0960	rv0959A	
31		vapBC10	rv1397c	rv1398c	Inhibit the growth of *M. smegmatis*[6]
32		vapBC11	rv1561	rv1560	Inhibit the growth of *M. smegmatis*, by disrupting translation due to destruction of RNA; induction in macrophages[6]
33		vapBC12	rv1720c	rv1721c	Not inhibit the growth of *M. smegmatis*[6]
34		vapBC13	rv1838c	rv1839c	Inhibit the growth of *M. smegmatis*[6]
35		vapBC14	rv1953	rv1952	Not inhibit the growth of *M. smegmatis*[6]
36		vapBC15	rv2010	rv2009	Inhibit the growth *M. smegmatis*, expression in hypoxic conditions[6], but repressed during nutrient starvation[8],adaptation to hypoxia[9].
37		vapBC16	rv2231A	rv2231B	Not inhibit the growth of *M. smegmatis*[6]
38		vapBC17	rv2527	rv2526	
39		vapBC18	rv2546	rv2545	
40		vapBC19	rv2548	rv2547	Inhibit the growth of *M. smegmatis*[6]; induced during hypoxia[10] and macrophage infections[11], but repressed

					in sputum[15]
41		vapBC20	rv2549c	rv2550c	Not inhibit the growth of *M. smegmatis*[6]; induced during macrophage infection[11]
42		vapBC21	rv2757c	rv2758c	Inhibit the growth of *M. smegmatis*[6]
43		vapBC22	rv2829c	rv2830c	Inhibit the growth of *M. smegmatis*, by disrupting translation due to destruction of RNA[6]; induced during macrophage infection, hypoxia[6,9] and nutrient starvation[12]
44		vapBC23	rv2863	rv2862A	Not inhibit the growth of *M. smegmatis*[6]
45		vapBC24	rv0240	rv0239	
46		vapBC25	rv0277c	rv0277A	Inhibit the growth of *M. smegmatis*[6]
47		vapBC26	rv0582	rv0581	
48		vapBC27	rv0598c	rv0599c	Not inhibit the growth of *M. smegmatis*[6]
49		vapBC28	rv0609	rv0608	Inhibit the growth of *M. smegmatis*[6]
50		vapBC29	rv0617	rv0616A	Not inhibit the growth of *M. smegmatis*[6]
51		vapBC30	rv0624	rv0623	Inhibit the growth of *M. smegmatis*[6]
52		vapBC31	rv0749	rv0748	
53		vapBC32	rv1114	rv1113	
54		vapBC33	rv1242	rv1241	
55		vapBC34	rv1741	rv1740	Not inhibit the growth of *M. smegmatis*[6]
56		vapBC35	rv1962c	rv1962A	Inhibit the growth of *M. smegmatis*[6]
57		vapBC36	rv1982c	rv1982A	Not inhibit the growth of *M. smegmatis*[6]
58		vapBC37	rv2103c	rv2104c	Inhibit the growth of *M. smegmatis*[6]; involved in the regulation of the growth rate (slowing) *M. bovis* under stressful conditions[5]
59		vapBC38	rv2494	rv2493	Not inhibit the growth of *M. smegmatis*[6], but involved in the regulation of the growth rate (slowing) *M. bovis* under stressful conditions[5]
60		vapBC39	rv2530c	rv2530A	Inhibit the growth of *M. smegmatis*[6]

61		vapBC40	rv2596	rv2595	Not inhibit the growth of *M. smegmatis*[6]
62		vapBC41	rv2602	rv2601A	Inhibit the growth of *M. smegmatis*[6]
63		vapBC42	rv2759c	rv2760c	Not inhibit the growth of *M. smegmatis*[6]
64		vapBC43	rv2872	rv2871	Inhibit the growth of *M. smegmatis*[6]
65		vapBC44	rv3320c	rv3321c	Not inhibit the growth of *M. smegmatis*[6]; repressed during hypoxia[9] and nutrient starvation[8]
66		vapBC45[2]	rv2019	rv2018	Not tested
67		vapBC46	rv3384c	rv3385c	Inhibit the growth of *M. smegmatis*[6]
68		vapBC47	rv3408	rv3407	Inhibit the growth of *M. smegmatis*, by disrupting translation due to destruction of RNA[6]
69		vapBC48	rv3697c	rv3697A	Not tested
70		vapBC49[2]	rv3180c	rv3181c	
71		vapBC50[2]	rv3749c	rv3750c	

[1]ND = not determined
[2]These systems are described and annotated by Sala et al. in 2014 [1].
[3]Annotation of this system at the GenBank (sequences database, NCBI) looks like a relBE3, but Sala P. [1] proposed to call it YefM/YoeB.
[4] According to Sala P. et al [1].
[5] According Beste DJ et al. [2].
[6] According Ramage HR et al. [3].
[7] According Manganelli R et al. [4].
[8] According Betts JC et al. [5].
[9] According Sherman DR et al. [6].
[10] According Muttucumaru DG et al. [7].
[11] According Stewart GR et al. [8].
[12] According Hampshire T et al. [9].
[13] According Gupta A et al. [10].
[14] According Miallau L et al. [11].
[15] According Garton NJ et al. [12].

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