

**Table S5.** Relative *in vitro* transcriptional activities and BRE/TATA box scores of the *M. vannielii* tRNA<sup>Val</sup> promoter and mutants from it

Plasmid	Mutation <sup>a</sup>	BRE/TATA box score (bit) <sup>b</sup>	Relative transcriptional activity (%) <sup>c</sup>
pIC 31/30	AAAAGTTTATATATCATGA	12.76	100
pIC 31/31	AAAAG <b>G</b> TTATATATCATGA	9.83	58 ± 4
pIC 31/32	AAAAGT <b>G</b> TATATATCATGA	5.10	13 ± 5
pIC 31/33	AAAAGTT <b>G</b> ATATATCATGA	4.23	21 ± 6
pIC 31/34	AAAAGTTTATA <b>G</b> ATCATGA	4.42	1 ± 1
pIC 31/35	AAAAG <b>GG</b> TATATATCATGA	2.17	3 ± 2
pIC 31/43	AAAAGTTT <b>G</b> TATATCATGA	4.69	10 ± 5
pIC 31/44	AAAAGTTT <b>A</b> GATATCATGA	4.67	3 ± 2
pIC 31/45	AAAAGTTTAT <b>G</b> TATCATGA	9.31	16 ± 3
pIC 31/46	AAAAGTTTATAT <b>G</b> TCATGA	10.29	39 ± 4
pIC 31/47	AAAAGTTTATAT <b>A</b> GCATGA	12.76	105 ± 11
pIC 31/48	AAAAGTTTATATATC <b>G</b> TGA	12.76	95 ± 30
pIC 31/49	AAAAGTTTATATATCAT <b>G</b>	12.76	115 ± 54
pIC 31/50	AAAA <b>T</b> TTTATATATCATGA	12.86	94 ± 26
pIC 31/51	AA <b>G</b> AGTTTATATATCATGA	8.61	45 ± 13

<sup>a</sup>Mutations are shown in bold and are underlined.

<sup>b</sup>Calculated using the PWMs of the BRE and the TATA box of the identified protein promoters of *M. jannaschii*.

<sup>c</sup>Data from (1).

## REFERENCES

1. Hausner, W., Frey, G. and Thomm, M. (1991) Control regions of an archaeal gene. A TATA box and an initiator element promote cell-free transcription of the tRNA<sup>Val</sup> gene of *Methanococcus vannielii*. *J. Mol. Biol.*, **222**, 495-508.