

**Table S3.** Chi-square test of comparison between nucleotide frequencies observed at corresponding positions in the protein promoters (this study) and the *in vitro* selected promoters (1)

Position <sup>a</sup>	Chi-square test <i>p</i> value
-50	0.05175
-49	0.82246
-48	0.08679
-47	0.93680
-46	0.38310
-45	0.65923
-44	0.73333
<b>-43</b>	<b>0.02085</b>
-42	0.32817
-41	0.44631
-40	0.17808
-39	0.14081
-38	0.14136
<b>-37</b>	<b>0.00022</b>
<b>-36</b>	<b>0.04585</b>
<b>-35</b>	<b>0.01631</b>
-34	0.60460
-33	0.07074
<b>-32</b>	<b>0.00005</b>
-31	0.19297
-30	0.09153
-29	0.10896
<b>-28</b>	<b>0.03292</b>
<b>-27</b>	<b>0.00324</b>
-26	0.11668
-25	0.26751
<b>-24</b>	<b>0.02012</b>
-23	0.41809
-22	0.21196
-21	0.78206
<b>-20</b>	<b>0.03024</b>
-19	0.62309
-18	0.59914
-17	0.34266
-16	0.99755

<sup>a</sup>Positions with a *p* value of less than 0.05 are shown in bold.

## REFERENCES

1. Li,E., Reich,C.I. and Olsen,G.J. (2008) A whole-genome approach to identifying protein binding sites: promoters in *Methanocaldococcus* (*Methanococcus*) *jannaschii*. *Nucleic Acids Res.*, **36**, 6948–6958.