

**Supplementary Table 4. Top-20 promoter candidates as recommended by Treas2m (ENCORE) in explorative mode.**

Accession	Species	Strain	Region	Size	Frequency (%)	Frequency (10 <sup>6</sup> )	Region	Size	Strain	Strain	Strain	Region
1	NC01	NC01	NC01	100	100	100	NC01	100	NC01	NC01	NC01	NC01
2	NC02	NC02	NC02	100	100	100	NC02	100	NC02	NC02	NC02	NC02
3	NC03	NC03	NC03	100	100	100	NC03	100	NC03	NC03	NC03	NC03
4	NC04	NC04	NC04	100	100	100	NC04	100	NC04	NC04	NC04	NC04
5	NC05	NC05	NC05	100	100	100	NC05	100	NC05	NC05	NC05	NC05
6	NC06	NC06	NC06	100	100	100	NC06	100	NC06	NC06	NC06	NC06
7	NC07	NC07	NC07	100	100	100	NC07	100	NC07	NC07	NC07	NC07
8	NC08	NC08	NC08	100	100	100	NC08	100	NC08	NC08	NC08	NC08
9	NC09	NC09	NC09	100	100	100	NC09	100	NC09	NC09	NC09	NC09
10	NC10	NC10	NC10	100	100	100	NC10	100	NC10	NC10	NC10	NC10
11	NC11	NC11	NC11	100	100	100	NC11	100	NC11	NC11	NC11	NC11
12	NC12	NC12	NC12	100	100	100	NC12	100	NC12	NC12	NC12	NC12
13	NC13	NC13	NC13	100	100	100	NC13	100	NC13	NC13	NC13	NC13
14	NC14	NC14	NC14	100	100	100	NC14	100	NC14	NC14	NC14	NC14
15	NC15	NC15	NC15	100	100	100	NC15	100	NC15	NC15	NC15	NC15
16	NC16	NC16	NC16	100	100	100	NC16	100	NC16	NC16	NC16	NC16
17	NC17	NC17	NC17	100	100	100	NC17	100	NC17	NC17	NC17	NC17
18	NC18	NC18	NC18	100	100	100	NC18	100	NC18	NC18	NC18	NC18
19	NC19	NC19	NC19	100	100	100	NC19	100	NC19	NC19	NC19	NC19
20	NC20	NC20	NC20	100	100	100	NC20	100	NC20	NC20	NC20	NC20

Note: Size of color bars indicate promoter expression strength (see Figure 1), and column "Signal" shows measurement mean specific rate of GFP synthesis. Related to Figure 5 and 6.