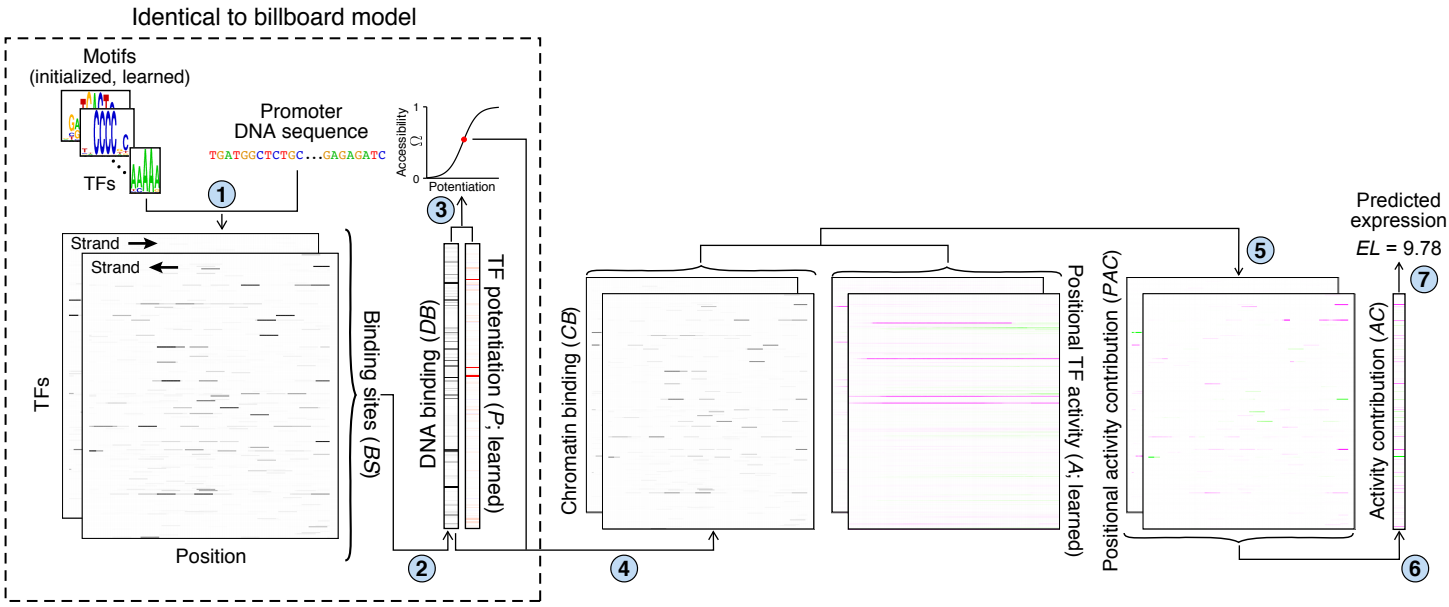
Supp. Fig. 9



Strand s, position i, TF x

1 Identify binding sites (*BS*)

$$BS_{xsi} = \frac{1}{1 + \frac{Kd_{xsi}}{C_x}}$$

2 "Billboard" summary of TF binding to DNA

$$DB_x = \sum^{i,s} BS_{xsi}$$

3 Predict accessibility

$$\Omega = \frac{1}{1 + e^{DB \cdot P + c_p}}$$

4 Calculate *positional* TF binding to chromatin

$$CB = DB \times \Omega$$

5 Calculate positional activity contribution

$$PAC = CB \circ A$$

6 Summarize activity contribution per TF

$$AC_x = \sum^{i,s} PAC_{xsi}$$

7 Predict expression level

$$EL = \sum^{x} AC_x + c_e$$