

**Table S3.** Kolmogorov–Smirnov test was applied to the enrichments on the sequences with different similarities to the motif.

	$-\log_{10}(p) < 4$	$-\log_{10}(p): 4-5$	$-\log_{10}(p): 5-6$	$-\log_{10}(p) > 6$
$-\log_{10}(p) < 4$				
$-\log_{10}(p): 4-5$	$< 2.2e-16$			
$-\log_{10}(p): 5-6$	$< 2.2e-16$	$< 2.2e-16$		
$-\log_{10}(p) > 6$	$< 2.2e-16$	$< 2.2e-16$	$8.4e-4$	

Values show the Kolmogorov–Smirnov test p-values. Similarities to the motif were calculated with the FIMO tool, and categories are  $-\log_{10}(p\text{-value})$  is smaller than 4, between 4 and 5, between 5 and 6, and larger than 6.