

DNA-binding domain database:

JASPAR motifs

ELK1 CEBPB ARNTL
ARNT GLIS2 GLIS1
RREB1 GABPA CEBPA

DNA-binding domains (DBD)

C2H2 zinc finger
Helix-loop-helix
Tryptophan factors

ELK1 CEBPB ARNTL
ARNT GLIS2 GLIS1
RREB1 GABPA CEBPA

Motifs are sorted according to their DBD

Helix-loop-helix
CEBPA ARNTL ARNT
CEBPB

C2H2 zinc finger
RREB1 GLIS1 GLIS2

Tryptophan factors
GABPA ELK1

No guarantee that motifs sharing a DBD are similar to each other -> clustering of the motifs

Input:

(1) Set of candidate motifs

(2) DBD of ELK1

(3) Sequence set of ELK1

(4) Biological signal

ARNT GABPA
CACGTG ACCGGAAG

ELK1 RREB1
CCGGAAGT AAAAAA

Tryptophan Factors

S1 S3
S2 S4

65.2. 34.8
75.9. 19.2

MASSIF:

