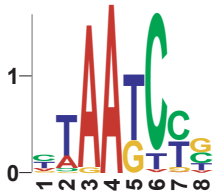
Bicoid (Bcd)

Matrix

A|	9	11	49	51	0	1	1	4
C|	19	3	0	0	0	45	25	16
T|	18	36	0	0	34	5	21	10
G|	5	1	2	0	17	0	4	21

Sequence Logo



Sequences

Sequence	Target Gene	Ref
catccgCTAAGCTCccg	hb	(1)
tcgctgCTAAGCTGgcc	hb	(1)
gatttggATGATCCGgg	hb	(1)
gtcataatcacctTTAATCCCaagtact	hb	(1)
ttctgctCTAATCCAgaatgg	hb	(1)
ccaacGTAATCCCcata	hb	(1)
cccatCTAATCCCttgacgc	hb	(1)
catgCTAATCTGatgactga	hb	(1)
ctgaacTAAATCCGgctt	kr	(2)
aaatTTAATCCGtttct	kr	(2)
gacaaATAATCCAgcct	kr	(2)
gtctgTTAATCTCcggc	kr	(2)
catggtgaTTAAGCTT	kr	(2)
ttcctTAAATCCGtctg	kr	(2)
gcccCTAATCCCttcgaca	eve	(3)
cttggCTAATCCCagca	eve	(3)
gactaATAATCTCgctg	eve	(3)
ccgtgTTAATCCGtttg	eve	(3)
ggactATAATCGCacaa	eve	(3)
attcctcgacTTAAGCTCgccgc	tll	(4)
actttaaaATAATTTTatttatt	tll	(4)
ctaaaatccGTAATCTGcttaag	tll	(4)
aaataaaaaaCAAATATTtgcatttctt	tll	(4)
cagtgcctCTAATCTCgcttggtc	tll	(4)
ggcaacgcCTAATCTGgctcagc	tll	(4)
ctTGAATCCTaaaggctctcaa	tll	(4)
aaacgcaatCTGAGCTCcg	tll	(4)
gttacCTAATCGCgg	kni	(5)

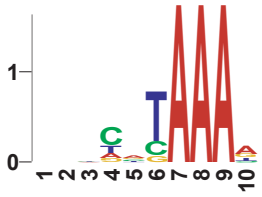
ctaggATAATCTGcag	kni	(5)
ggtacCTAAGCCAgc	kni	(5)
cttacCTAAGCTGcag	kni	(5)
taacGAAATCGCtgg	kni	(5)
GTAAGCTGatcccgcg	kni	(5)
caatccTCAATCCGcgatccgt	hb	(6)
tggctgCAAATCCGacg	spalt	(7)
ccacggaCAAATCCTttggcc	spalt	(7)
tggctgCAAATCCGacg	spalt	(7)
gaattATAATCCCttcgatcg	spalt	(7)
tactaaTTAAGCATggctcaa	spalt	(7)
tcttcgATAAGCCGgaggaa	spalt	(7)
ttGCAAGCCGtttttcaggggcg	spalt	(7)
TAAAGTTGatcattagt	h	(8)
cttgaCAAATCGCcgtg	h	(8)
agcaaacgtTAAAGTTG	h	(8)
atcttTTAATCTTgata	h	(8)
accagTCAATCTGgact	h	(8)
tctacTTAAGCCGaaaa	h	(8)
aagcaagaCTAATTTTt	h	(8)
gttttTTAAGCCTtttgc	h	(9)
caAAAAGTCAaatgc	h	(9)
ttttTTAAGCCTttc	h	(9)

Caudal (Cad)

Matrix

```
A|    4   4   8   5  14   0  34  34  34  17
C|    1   2   7  18   7   7   0   0   0   3
T|    2   4  12   7   6  24   0   0   0   6
G|    2   5   7   4   7   3   0   0   0   8
```

Sequence Logo



Sequences

Sequence	Target Gene	Ref
AACCATAAAC	ftz	(10)
AGACATAAAA	ftz	(10)
AATCATAAAG	ftz	(10)
TTCCCTAAAA	ftz	(10)
-TAACGAAATcg	kni	(5)
-GTCATAAAGtc	kni	(5)
-GGCCTAAAAaa	kni	(5)
-CGTGCAAACgt	kni	(5)
-ACCATAAATtg	kni	(5)
-GAGCCAAACaa	kni	(5)
GTGCATAAAT	en	(11)
TCACATAAAG	en	(11)
GGCCATAAAA	en	(11)
--TAATAAATtcc	h	(9)
--TTTTAAAAaat	h	(9)
tgcCAAAATAAAGat	h	(9)
--TTGTAAAAccc	h	(9)
--TGCCAAAAtaaagat	h	(9)
--TTCTAAAAaaa	h	(9)
--TGGTAAAAaga	h	(9)
--CAATAAAGtct	h	(9)
--GCTTAAAAaaa	h	(9)
--CCCGAAAGagt	h	(9)
--TTACAAAGacg	h	(9)
--GTTCAAATcag	h	(9)
--TCGTAAAAccc	h	(9)

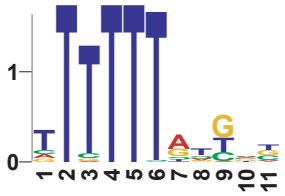
--CCATAAAAaa	h	(9)
--TCGCAAAAaaa	h	(9)
--ACTTAAAAacatagtttc	h	(9)
--GCTTAAAAac	h	(9)
--AGATAAAGaag	h	(9)
aatcaaaaaATGTGGAAATtcc	h	(9)
--AATCAAAAaatgtggaaattcc	h	(9)
--TCGTAAAAaac	h	(9)

Hunchback (Hb)

Matrix

```
A|   12    0    1    0    0    0   49   17    2   27    9
C|   12    0    4    0    0    1    9   17   18   25   26
T|   59   93   86   93   93   92    9   47   28   17   30
G|   10    0    2    0    0    0   26   12   45   24   28
```

Sequence Logo



Sequences

Sequence	Target Gene	Ref
tgggttATTTTTTTGCGc	eve	(12)
tatgtGTTTTTATGACtt	eve	(12)
cccacgaTTTTTTTGGCC	eve	(12)
tgctCTCTTTACGGTtta	eve	(12)
cccaATTTTTAGTGGaaa	eve	(12)
cagATTTTTATGGGtcc	eve	(12)
tcagTTTTTTGTTTTggc	eve	(12)
ctcGTTTTTAAGATccg	eve	(12)
gcgcCTTTTTATTGGtgc	eve	(12)
accgATTTTTGTGCCcgg	eve	(12)
cgcGTTTTTAATGCttac	eve	(12)
ctagtTTTTTTCCCCGaac	eve	(12)
cagcTTCTTTGTTCCggg	eve	(12)
cacgTTTTTTGTTCCcat	eve	(12)
gcgCTTTTTTCGCTgcg	eve	(12)
ctaaTTTTTTAATTCttca	eve	(12)
tcacGTTTTTACGAGctc	eve	(12)
atatatagTTGTTTAATTAtaatt	hb	(13)
CTTTTTCCCGTtttgcgtttttaa	hb	(13)
gcgcataaTTTTTTGTTTCtgctc	hb	(13)
tattccacCTTTTTAAGCTaattt	hb	(13)
tagaccaATTTTTTTCCCaagcgg	hb	(13)
ctttgccgTTTTTTGGCATctccg	hb	(13)
gccaattgTTTTTTGGGCAacttt	hb	(13)
atagtttttTTTTTTAGTCCaaaa	hb	(13)
gtgcgaATTTTTAAGCGgaaa	ubx	(14)
aacacacaTTTTTTATGGCgcatt	ubx	(14)

tgctaaatcATTTTTAAGGGaaaa	ubx	(14)
aatcataaTTTTTTGCCATggct	ubx	(14)
cgaaggcaccTTTTTTAATGGccgac	ubx	(14)
atttggTTTTTTACCAAcagcct	ubx	(14)
ttggacgcagTTTTTTATTAGcca	ubx	(14)
tgtaCTTTTTATGACctc	ubx	(15)
gcagtTTTTTTACGAGgt	ubx	(15)
acgaTTTTTTAATGTttc	ubx	(15)
accgTTTTTTATGTGtgc	ubx	(15)
ttaaaTTTTTTCAGACaaa	kr	(2)
acatCTTTTTTGCATtgt	kr	(2)
atttatatTTTTTTGCTTTt	kr	(2)
acacttttttCTTTTTCTGATc	kr	(2)
aattgCTTTTTATGATcatgc	kr	(2)
gcattGTTTTTACTTTgac	kr	(2)
gttGTTTTTAAGAGaa	kr	(2)
cgacgcGTTTTTTCGCGact	kr	(2)
tgcattgtTTTTTTTTCAGtttc	kr	(2)
ttgacaTTTTTTGTTGTt	kr	(2)
taatTTATTTATTTGccca	en	(16)
ctgTTTTTCAAGGCaca	en	(16)
tgcgTTTTTTCCCGTt	kni	(17)
tgacTTTTTTACAAGc	kni	(17)
agtcTTTTTTATGGTg	kni	(17)
ttaagTTTTTTGCCGC	kni	(17)
gttTTTTTTATTATTt	kni	(17)
aatatGTTTTTATGAGagg	h	(18)
ataaaTTTTTTTTCCCcta	h	(18)
tcgtcCTTTTTATGTTgtc	h	(18)
catttTTTTTTCTTCCttc	h	(18)
cgagATTTTTGCGTAatt	h	(18)
gttccATTTTTAGCGGaac	h	(18)
cgcagATTTTTAGTGCgaa	h	(18)
ctctcTTTTTTGTTTGttc	h	(18)
taattaTTTTTTATGAGttc	h	(18)
ttttcTTTTTTGTGGTtag	h	(18)
tcatcTTTTTTGTCACgtg	h	(18)
tcccaTTTTTTGTTCTaat	h	(18)
gctgttCTTTTTGGCCCtg	h	(18)
catgaTTTTTTATTTGccc	h	(18)
ttgcaATTTTTGTGGTttt	h	(18)
cgcacTTCTTTGTGGCcag	h	(18)
acccaATTTTTAGCTAata	h	(18)
ggctgagTTTTTTAGGCCaattct	kni	(5)
ctgcgTTTTTTGTAAC	kni	(5)
tccgcaaTTTTTTAAGCGgaaa	kni	(5)
ttgcaagccGTTTTTCAGGGgcg	spalt	(7)
ttgtgTTTTTTCTGCTtt	h	(8)
tttttTTTTTTTTGATtc	h	(8)
ggcaaCTTTTTGGGAAtt	h	(8)

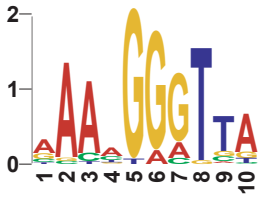
tctacTTTTTTATTGGcc	h	(8)
taatcTTTTTTATTAAat	h	(8)
gtgcgTTTTTTGTGCCca	h	(8)
cctccgtccgTTTTTTAAGCCtttctg	h	(9)
gtttttttTTTTTTGTTTTttttagaagtg	h	(9)
cgcaaaacccTTTTTTGTCTTgt	h	(9)
tcaaatgcgaTTTTTTATGGGaa	h	(9)
aacaataaaGTTTTTGACCAgattccgg	h	(9)
gggctgTTTTTTAAGCC	h	(9)
ggatcgcagTTTTTTACGATcctca	h	(9)
gacatcTTCTTTATCTAt	h	(9)
tTTGTTTCTTATttttagca	abd-b	(19)
gtttccgctgcaTTTTTTATGAGactg	abd-b	(19)
tcaacggcaaTTTTTTATGGTttgca	abd-b	(19)
attgtcccTTTTTTATTTTgtctgct	abd-b	(19)
cgaaTTTTTTGCGCGac	abd-b	(19)

Krüppel (Kr)

Matrix

```
A|   16  27  25  15   0   3   5   0   1  22
C|    4   1   3   7   0   0   2   0   3   1
T|    2   0   1   4   1   0   0  28  21   3
G|    7   1   0   3  28  26  22   1   4   3
```

Sequence Logo



Sequences

Sequence	Target Gene	Ref
tagcggcatAAAAGGGTTAaacaggtagc	kni	(20)
gcgcgcccatAAAAGGGTTAagcaca	kni	(20)
gaAAAAGGGGCAtttacgga	hb	(13)
gcgAACTGGGTTAttttt	eve	(12)
aatTATTGGGTTAtattg	eve	(12)
tgtcGAAGGGATTAggggc	eve	(12)
ctcaAAACGGGTTAagctc	eve	(12)
cgaGACCGGGTTGcgaag	eve	(12)
ggcAAACGGATTAacacg	eve	(12)
attTAACTGGTTAattga	en	(16)
tgcAAAAGGGTCAcggat	ubx	(14)
gtttCCACGGATTAgacc	h	(21)
cctCAACGGGTTTtacga	h	(21)
gcaGAAAGGCTTAaaaaa	h	(20)
actGAACGGGTCAgagga	h	(21)
caaAAAAGGGTTTtgcgg	h	(21)
ggcAAAAGGCTTAaaaaa	h	(21)
gcgtGAAAGGGTGAagcta	abd-a	(22)
acaataaatattcataAAAAGAGTTAagtgcc	kni	(5)
agttgacttttAAAAGGGTTAcaatt	kni	(5)
gcgcattgtaccAAAAGGGTTGttcagac	kni	(5)
acgcAAAAGGATGGcacaaatttcacgc	spalt	(7)
ccgatcGAAGGGATTAtaatt	spalt	(7)
ggacaaatcctttggccaacAAAAGGGTAAtggctgcaaa	spalt	(7)
ggttaagcaaaggagtgtcatagAAATGGGTGAaattctgttc	spalt	(7)
tggCAAAGGGTTTcgccc	h	(23)
tcaAGCTGAGTTAaaact	h	(23)
cacCAAAGGGTTCgtgag	h	(23)
gtaGAAGGAGTGAcactc	h	(23)

Knirps (Kni)

Matrix

A|	5	5	1	0	4	0	3	0	0	5
C|	0	0	3	0	1	0	1	1	5	0
T|	0	0	0	3	0	0	0	2	0	0
G|	0	0	1	2	0	5	1	2	0	0

Sequence Logo

Sequences

Sequence	Target Gene	Ref
AAAGAGAGCAccggg	eve	(24)
atgggAACGCGGCCA	eve	(24)
agaaAACTAGATCA	eve	(24)
AACTAGCGCAgcga	eve	(24)
aggaAAGTAGATCA	eve	(24)

References for Supplementary Figure 5

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