Enhancer activities of amphioxus Brachyury genes in embryos of the ascidian, Ciona intestinalis

Tables

Table 1. Number of *Ciona* embryo *LacZ* expression

	Muscle	No signal
BfBra1 -3kbp 8h	139	160
BfBra1 -3kbp 12h	78	203
BfBra2 -2kbp 8h	205	223
BfBra2 -2kbp 12h	130	232

	No signal	Notochord
BfBra1 +3kbp 7h	39	24
BfBra1 +3kbp 11h	30	34
BfBra2 +3kbp 7h	91	9
BfBra2 +3kbp 11h	82	18

7h	No signal	Notochord	Muscle	Noto + Mus	Ectopic
BfBra1 intron1	9	7	0	0	1
BfBra1 intron2	29	35	1	2	2
BfBra1 intron3	150	53	0	1	0
BfBra1 intron4	25	24	0	2	1
BfBra1 intron5	140	0	0	2	1
BfBra1 intron6	86	0	0	0	0

11h	No signal	Notochord	Muscle	Noto + Mus	Ectopic
BfBra1 intron1	35	41	6	5	3
BfBra1 intron2	74	72	2	5	8
BfBra1 intron3	19	24	5	4	4
BfBra1 intron4	29	46	0	0	3
BfBra1 intron5	46	6	1	3	2
BfBra1 intron6	38	2	4	1	2

7h	Notochord	Muscle	Both	No signal
BfBra2 intron1	29	91	32	32
BfBra2 intron2	30	13	46	39
BfBra2 intron3	0	89	28	0
BfBra2 intron4	1	70	134	1
BfBra2 intron5	0	154	15	0
BfBra2 intron6	2	210	19	37

11h	Notochord	Muscle	Both	No signal
BfBra2 intron1	17	65	24	53
BfBra2 intron2	15	34	15	66
BfBra2 intron3	0	107	0	0
BfBra2 intron4	46	22	48	15
BfBra2 intron5	24	52	15	35
BfBra2 intron6	17	241	19	107

Table 2. Primer sequences

Product Name	Primer Name	Sequence (5'→3')
pPD1,27_*LacZ* vector pPD1.27 + *BfBra*-3kbp	pPD1.27_F	ATGACTGCTCCAAAGAAGAAG
	pPD1.27_R	TGAGCTCGGTACCCGGGGATC
BfBra1 -3kbp	*Bra1*_-3k_F	CGGGTACCGAGCTCACTATGTACTACTATCATCGTCAG
BfBra1 -0.5, -1, -2, -3kbp	*Bra1*_upstream_R	CTTTGGAGCAGTCATCTCGTTGTTGACGCTGGTCT
BfBra1 -2kbp	*Bra1*_-2k_F	CGGGTACCGAGCTCACTGTAAGACATCCAGGATAACTTG
BfBra1 -1kbp	*Bra1*_-1k_F	CGGGTACCGAGCTCAACTTCAGCTGATTATCCGGCACTT
BfBra2 -2kbp	*Bra2*_-2k_F	CGGGTACCGAGCTCACTGGTAGTACATGAAATCAAGGAG
BfBra2 -1kbp	*Bra2*_-1k_F	CGGGTACCGAGCTCATGCGCAATAAAGACCACAATAGCG
BfBra1 -3kbp ~ -5.5kbp	*Bra1*_-5.5kbp_F	CGGGTACCGAGCTCATGTTTACAAACTGCTAGTCAATAA
BfBra1 -3kbp ~ -5.5kbp	*Bra1*_-3kbp_R	TTTCTCGGATATCTGACGATGATA
pPD1.27 + BfBra-3kbp	*Bra1*_-3k_vectF	CAGATATCCGAGAAAGGTATATAG
BfBra1 -0.5kbp	*Bra1*_HCRdeletion_F	CGGGTACCGAGCTCAACAGAAAATTTCATTACATTATTTATA ACAGTTACAGCTTCTT
BfBra2 -5.7kbp	*Bra2* _-5.7kbp_F	CGGGTACCGAGCTCAATGTGGAATGTCGGGCGATAGATT
BfBra2 -1, -2, -5.7kbp	*Bra2*_upstream_R	CTTTGGAGCAGTCATGGTGCACGGTACGGCTGAAGTATC

pSP1.72 *CiBra* basal promoter >*LacZ* vector	*CiBra*_promotor_F	GGAGCTCCACCGCGGCTGTATAAACTTGCACCCGAGTGT
	pSP1.72_R	TGAGCTCGGTACCCGCTTCAGCTGCTCGAGTTCTATAGT
BfBra2 downstream	*Bra2*_downstream_F	CGGGTACCGAGCTCACCATGACCATGCCGTCCATGTAAA
	*Bra2*_downstream_R	CCGCGGTGGAGCTCCTCACCAATGGTTTCCTGACAAGTT
BfBra1 downstream	*Bra1*_downstream_F	CGGGTACCGAGCTCAGAACGAGGTCAAACAAACGTCAAT
	*Bra1*_downstream_R	CCGCGGTGGAGCTCCCCTATGACTCCACCATCGCTCTAA
BfBra1, *Bra2* intron1	Common_intron1_F	CGGGTACCGAGCTCAGACCGAGCGGGACCTGAA
	Common_intron1_R	CCGCGGTGGAGCTCCACCTTCAGCACGGGGAACAT
BfBra1, *Bra2* intron2	Common_intron2_F	CGGGTACCGAGCTCACAAGGTCAAACTCACCAACAAACT
BfBra1 intron2	*Bra1*_intron2_R	CCGCGGTGGAGCTCCGCTGACCATGCGCTGGTTAT
BfBra2 intron2	*Bra2*_intron2_R	CCGCGGTGGAGCTCCTGTGCAGGCTGTTCAGCATTATCT
BfBra1 intron3	*Bra1*_intron3_F	CGGGTACCGAGCTCAGCAGTTACGGCGTACCAGAATGAA
	*Bra1*_intron3_R	CCGCGGTGGAGCTCCGAAAGCCTTGGCGAAAGGGTTATA
BfBra2 intron3	*Bra2*_intron3_F	CGGGTACCGAGCTCACACATTCGCCGAGACACAGTTCAT
	*Bra2*_intron3_R	CCGCGGTGGAGCTCCAACGGGTTGTGCTTGATCTTCAAA
BfBra1 intron4	*Bra1*_intron4_F	CGGGTACCGAGCTCATAACCCTTTCGCCAAGGCTTTCTT
	*Bra1*_intron4_R	CCGCGGTGGAGCTCCTCCATTCCGTCCTTCCCATCACTT
BfBra2 intron4	*Bra2*_intron4_F	CGGGTACCGAGCTCAAAAGCCTTCCTTGACGCTAAAGAA
	Bra2-intron4_R	CCGCGGTGGAGCTCCGCGAACGGGTTGTGCTTGAT

BfBra1 intron5	*Bra1*_intron5_F	CGGGTACCGAGCTCAGGAAGATTTGCAAGATCAACCACAAT
BfBra2 intron5	*Bra2*_intron5_F	CGGGTACCGAGCTCAGAGTGGACATGACGACTTGACTGA
BfBra1, Bra2 intron5	Common_intron5_R	CCGCGGTGGAGCTCCGGGCAGATGGGGCCTGTA
BfBra1, Bra2 intron6	Common_intron6_F	CGGGTACCGAGCTCACCGCACCCGTACCAGAGA
BfBra1 intron6	*Bra1*_intron6_R	CCGCGGTGGAGCTCCCATGGCTGACATGGACAGCATGTT
BfBra2 intron6	*Bra2*_intron6_R	CCGCGGTGGAGCTCCCATGGCTGACATGGACAGCATGTT