

**Table S2. Oligonucleotide Sequences Used to Amplify In Situ Probes, Related to STAR Methods.**

T7 RNA polymerase promoter sequences introduced at the 5'-end of antisense primer are indicated in blue.

LS-transcriptB2-ctg#: Contig number from Little Skate Transcriptome (Little Skate Transcriptomic Contigs Build 2)

[GEO:GSM643957]

Gene	Primer Sequence		Source
Skate	(5'-3')		
<i>Hoxa5</i>	fw	ATGAGCTCTTACTTTGTAAACTCA	FJ944024
	rev	TAATACGACTCACTATAGGGGCAATTTCTATCCGTCGTCTCCGG	(Genbank accession #)
<i>Hoxa6</i>	fw	ATGAGTTCGTATTTTGTGAACCCT	
	rev	TAATACGACTCACTATAGGGTTACTCCCCTGTTTATCTTCTGC	
<i>Hoxa7</i>	fw	ATGAGTTCGTCTGATTATGTGAAT	
	rev	TAATACGACTCACTATAGGGTCATTCTGTTTTCTCGTTGT	
<i>Hoxa9</i>	fw	ATGTCGACATCGGGGACTATCAGC	
	rev	TAATACGACTCACTATAGGGTTCGGTGAGATTGAGAACCCGGGC	
<i>Hoxd9</i>	fw	ATGTCGACCGGTGGCACCATACAC	LS-transcriptB2-ctg10923
	rev	TAATACGACTCACTATAGGGAACCTCATAGCGCGGTCTCTGGT	
<i>Hoxd10</i>	fw	ATGTCCTGTCCAATAGCTCTCCC	LS-transcriptB2-ctg14651
	rev	TAATACGACTCACTATAGGGTTTGGTCTCTTCTCCGCCTTTT	
<i>EphA4</i>	fw	AAGTTACGCTGCTGGATTCCCGGT	LS-transcriptB2-ctg52935
	rev	TAATACGACTCACTATAGGGCTGTTGCATTTCTTACAGAGCACG	
<i>EphB1</i>	fw	GTGGAAGAGACCCTGTTGGACACT	LS-transcriptB2-ctg13636
	rev	TAATACGACTCACTATAGGGAAACTCCACATTCTCGTCACAGCG	
<i>EphrinA5</i>	fw	GGGAGGAAAGATGCTGTGACTGAT	LS-transcriptB2-ctg22055
	rev	TAATACGACTCACTATAGGGCGAGCTGTAGCCATCATAATTAC	
<i>Lmx1b</i>	fw	GCTTGGATTGCAACTCTGTTAGGT	LS-transcriptB2-ctg26181
	rev	TAATACGACTCACTATAGGGAGCAGGTCCTTCTCCTTCTCGTAG	
<i>Ret</i>	fw	CCAGACGAACGGGCCTTGACCATG	LS-transcriptB2-ctg32294
	rev	TAATACGACTCACTATAGGGATCTAGTAAATGCATGTGAAATTC	
<i>Meis</i>	fw	CGATGGCGCAGAGGTACGATGAGA	LS-transcriptB2-ctg16040
	rev	TAATACGACTCACTATAGGGCGGTGATGCTACACTGTTGTCCAA	
<i>Scip</i>	fw	ATGGCCACCACAGCTTCGGCTCAT	LS-transcriptB2-ctg19326
	rev	TAATACGACTCACTATAGGGGTCTTCTGTTACAAAACCAAATC	
<i>VACHT</i>	fw	GACATACAGATCGGAGTTCTGT	LS-transcriptB2-ctg16025
	rev	TAATACGACTCACTATAGGGTCCGTAGAACCATTGTAAGTTGGG	
<i>Gata2</i>	fw	ATGAATGCAGCAACAGTCTCTTCC	LS-transcriptB2-ctg17283
	rev	TAATACGACTCACTATAGGGGGGATAAAATGCTGTTGGGGTCA	

<b>Gata3</b>	fw	AGAAGGTCGAGAATGTGTCAATTG	LS-transcriptB2-ctg91343
	rev	TAATACGACTCACTATAGGGCTCGTTGGGGAGATATTGGTGCAG	
<b>Chx10</b>	fw	CAAGTGGAGGAAGCGTGAGAAGTG	LS-transcriptB2-ctg33646
	rev	TAATACGACTCACTATAGGGGTTTAGAACTTGTCAGTGGCGATC	
<b>Slit3</b>	fw	GCCACATCATGTCCACCGGC	
	rev	TAATACGACTCACTATAGGGCTCTGAGCCTGAGCAACGGAAC	
<b>Onecut1</b>	fw	CATGCTCGGGCGAGCGAACGC	
	rev	TAATACGACTCACTATAGGGACTGTTGTGAGTTGTGCAATG	
<b>Nell2</b>	fw	TGATCCGCGGCTGACCAAGTC	
	rev	TAATACGACTCACTATAGGGGAAGACAAGCAATTCAGCAATC	
<b>Nrcam</b>	fw	TGTACTIONGGAGTGCATTGCTG	
	rev	TAATACGACTCACTATAGGGGGACCACTCCATGAGTAT TGG	
<b>Ngfr</b>	fw	AGAGCAAGCAGTCAGTCCATC	
	rev	TAATACGACTCACTATAGGGCGAAGTGAGATACATTCAGCG	
<b>Pappa2</b>	fw	GATCTTGCCACATCTTGGGC	
	rev	TAATACGACTCACTATAGGGGATTGGTGTGCCAGAATATC	
<b>Cdh7</b>	fw	GCC AGC AAG GAC TAC TAA AGG	
	rev	TAATACGACTCACTATAGGGGTCTCTGACCTGTGTCTGAC	
<b>Amigo1</b>	fw	CTGTGCATCTACCCGAAACC	
	rev	TAATACGACTCACTATAGGGCTTTACCAGTCCCTGGAAGTG	
<b>Unc5c</b>	fw	AGCTGCGGACATCTCAAGATG	
	rev	TAATACGACTCACTATAGGGCACGAGGACCAGCCTCCGTTT	
<b>Irx5</b>	fw	GTCCATACTCTTGCCAGCGAC	
	rev	TAATACGACTCACTATAGGGCGGACAGTTTGAATCGACCG	
<b>Lrp1b</b>	fw	GGGGATAAAGATTGTCCAGACGG	
	rev	TAATACGACTCACTATAGGGGTGTAGTTGAATCCATCTATAC	
<b>Zfp804a</b>	fw	CCAGGGAGTGGTCCCATGTTC	
	rev	TAATACGACTCACTATAGGGACTTTGTGTTGAGGGTTGC	
<b>Id4</b>	fw	ACTCCAAGCTCAAGCAGTTGG	
	rev	TAATACGACTCACTATAGGGGAGATTGCCAGGCGCACC	
<b>Prph</b>	fw	GTACCGTGTGTCGAGCTCCAG	
	rev	TAATACGACTCACTATAGGGGCTTCTCTTCCAACCGCTGC	
<b>Pcdhga10</b>	fw	GCCAAATTTAAGTGTTCTAC	
	rev	TAATACGACTCACTATAGGGGCAAAACGTGGGGCATTATC	
<b>Ndnf</b>	fw	ACTCTGGAGGTCAGGAGATCC	
	rev	TAATACGACTCACTATAGGGCATTCTCTGAAATGCTGC GCG	

<b><i>Pcdh19</i></b>	fw	GTCGGCTCTGGCTACTTGGTG	
	rev	TAATACGACTCACTATAGGGCAAGAGCAGCTGACCACGTTC	
<b><i>Sema5b</i></b>	fw	CGGGATTACAGCCAGGCAGAG	
	rev	TAATACGACTCACTATAGGGCATCTCGCCACGCCGTTGAAC	
<b><i>Bnc2</i></b>	fw	CAACCTGCGGACCTGTGACCAG	
	rev	TAATACGACTCACTATAGGGGGTGAACACTGGACGGGTTGC	
<b>Gene</b>	Primer Sequence		Source
<b>Mouse</b>	(5'-3')		
<b><i>Pappa2</i></b>	fw	ATGGTCCTATTGGGCAATCGC	
	rev	TAATACGACTCACTATAGGGGGGCTATTTAGCGGTCCAAAC	
<b><i>Amigo1</i></b>	fw	TGTGCGCCAGCAACATCCTC	
	rev	TAATACGACTCACTATAGGGGTATATGAGGACCAGAACCAC	
<b><i>Irx5</i></b>	fw	AACCGCTCGTCTGGCGGAAG	
	rev	TAATACGACTCACTATAGGGTGTGCGACATACCTTTCTTC	
<b><i>Lrp1b</i></b>	fw	CACTGTATCCAAGCACGATGG	
	rev	TAATACGACTCACTATAGGGGTGCTATGGTATTTCTCAGTCC	
<b><i>Zfp804a</i></b>	fw	CACATTAACATATGACCACG	
	rev	TAATACGACTCACTATAGGGCCTCTGTGGTCATCTGTGCTG	
<b><i>Ngfr</i></b>	fw	GGAGGTGCCAAGGAGACATG	
	rev	TAATACGACTCACTATAGGGCACAGGCTCTCCACAATGTC	
<b>Gene</b>	Primer Sequence		Source
<b>Chicken</b>	(5'-3')		
<b><i>Pappa2</i></b>	fw	ACGTCGCCAGCCTGAACTGC	
	rev	TAATACGACTCACTATAGGGTCCTGGTCACAGTCAGCAGC	
<b><i>Irx5</i></b>	fw	TCGGTGCGAGGGGCAGAGAC	
	rev	TAATACGACTCACTATAGGGGCGTTCGCTTCTTGCGGTAC	
<b><i>Lrp1b</i></b>	fw	GATCATCCACAGTACTAGC	
	rev	TAATACGACTCACTATAGGGACTGGGCATTTAGTTCATCTG	
<b><i>Znf804a</i></b>	fw	CTGTACACTGATGCACAATACAC	
	rev	TAATACGACTCACTATAGGGGCTTCAGCATCACCACATTC	
<b><i>Ngfr</i></b>	fw	CTCCAAGTGCTTGACTAAGATG	
	rev	TAATACGACTCACTATAGGGATGAGGTTATCGGCGGTGCC	