

Table S1. ISH probe references

Mouse		
Gene	Primer sequence (5' to 3')	Gene reference
<i>E2f8</i>	(F) CCATCATGCCTCTTCCTGCC (R) TGCAATGGGGGAGCCATAGA	NM_001013368.5
<i>Egr1</i>	(Panitz et al., 1998)	6488118
<i>Gpr177</i>	(F) CCCAAGACCCAGAGCACG (R) TTCCCCGCTGTGGACACCA	NM_026582
<i>Smek2</i>	(F) CTCCATTCCCCAGTGCTA (R) GCTGCTGCATTTCTTGGCTG	NM_134034.2
<i>Ddx31</i>	(F) ACGCACTCAGTCCAGATGA (R) TGTCGCTGACAGGAGGACAT	NM_001033294.3
<i>Lasp1</i>	(F) GTACCCACGGAGAAGGTGA (R) GGGCGGGGATAAAGAAGCAG	NM_010688.4
<i>Eprs</i>	(F) CGGGTTTCTGAGACTGTGGC (R) CGGTAAAGGGTCGGGTCTCT	NM_029735.1
<i>Pfk1b1</i>	(F) ACAAGGGTGCTTCTCAGCCTTC (R) GGCCAGAGTCACCTCCAATGCG	ENSMUST00000112713
<i>1110067D22Rik</i>	(F) GCCGTGGTGAACCTTGATGATGGG (R) CGGTTGTGCTACGCAATTCCACG	NM_173752
<i>Ier2</i>	(F) ACCGGAGCGGAGAACGCACA (R) GCAACTACGACCAGCGGCC	NM_010499
<i>Tmem41b</i>	(F) TGACCTCCTTGGGGCAGCACTT (R) TGTGAGCTTTAGAGCCTGCTGAAAA	NM_153525.5
<i>Shisa2</i>	(F) CTA CTGCTGCTCCAGCGCCG (R) CGGAGGCACTGGCGTCATGG	ENSMUST00000053949
<i>Lfng</i>		Gift of A. Aulehla
Chicken		
Gene	Primer sequence (5' to 3')	Gene reference
<i>E2F8</i>	(F) AAAGATCTCAACCGAGCCGC (R) AGGGATGGATGCCGAGTGAA	XM_420910.2
<i>EGR1</i>	(F) ATGGACGGCCACTATCCCAA (R) GCCGTTTATGAGGAGGTGTC	NM_204136.6
<i>GPR177</i>	(F) TCGGCAGCGTGGCTCACAAG (R) GCAGGAGGGCATTGCGTCTG	NM_001031294
<i>SMEK2</i>	(F) CGGCACA ACTGCTTGCTTA (R) GGTGGCGTTCTTGAAGAGG	XM_424305.2
<i>DDX31</i>	(F) GTCCCCACATGGAAACCCAC (R) GTGAGTGTGGCTGAGAGCAG	XM_425332.2
<i>LASP1</i>	(F) GCGCGTTGCGGGAAGATCGTA (R) CTGGCAGCATCCCCGTGTCG	NM_001177329
<i>EPRS</i>	(F) GCAATGTTGTGCGTTGGGAG (R) CGCACTCACTTCCCCACAA	NM_001006398.1
<i>ID1</i>		ChEST265a2
<i>SPRY2</i>		(Minowada et al., 1999)
<i>DACT1</i>		ChEST414k23
<i>AXIN2</i>		ChEST371a17
<i>T</i>		Gift of Macken lab
<i>LFNG</i>		Gift of D. Ish lab
Zebrafish		
Gene (probeset)	Primer pairs for nested PCR	Gene reference
<i>her2</i>	(F-out) CGAGCTCTGACAGCACAT (For-in) CACCAACTGTCTGCAAAGC (R-inT7) TAATACGACTCACTATAGGGCATTCTATGCGTCAGGACAG (R-out) CGCGTGAAGTAAAGCAATAG (F-out) CATCGAGAAGCTCAAGACTC	NM_131089.1
<i>her4</i>	(For-in) CTCAAGAGTTCATCAAGCAG (R-inT7) TAATACGACTCACTATAGGGCACAGCTACACTGCAATATC (R-out) TGTCCATCTTCGTTTGTAGTGC	NM_131090
<i>angptl7</i> (Dr.10141)	(F-out) GGGCTGACAAGCTTCAACC	NM_001006073.1

	(For-in) GTGATTCTGGCTCGGTAAC	
	(R-inT7) TAATACGACTCACTATAGGGTGCATAACAAATCCTCTGG	
	(R-out) CTCTACCACTGAATTTCTCTG	
	(F-out) CGCTGTGTAGATATTGACGAG	
<i>fbln</i>	(For-in) GACACGGCTGTATTAATCTGG	NM_131042.1
	(R-inT7) TAATACGACTCACTATAGGGAATTCTGGATGTTTCCTTC	
	(R-out) GATCATCCCGTGATCCAG	
	(F-out) TTTGAAAGACAAGCCAGGAC	
<i>nrarpa</i>	(For-in) CCTTGCCAAATAAACCTCAG	NM_181495.3
	(R-inT7) TAATACGACTCACTATAGGGCCAGATCTGCTGACTTAAAC	
	(R-out) AAGTGCCATCTCGATTTCTC	
	(F-out) CACACCCAGAGATCCAAAG	
<i>dact2</i>	(For-in) AAGGTAGCGATGGTAAGGAG	NM_001077794.1
	(R-inT7) TAATACGACTCACTATAGGGTTTCAGGCTAAGCAAGCTGG	
	(R-out) GGTGGTGTGAGAAAGTACAG	
	(F-out) GACTTTATTCAAGTCCCTACG	
	(For-in) AATCATCAATCCACGCTTTC	
	(R-inT7) TAATACGACTCACTATAGGGACACGAAGGGTCTCTCTCC	NM_180973.2
	(R-out) ATCTGACCGGGTGAAACTC	
<i>sp5</i>	(F-out) AACCTTCACCTTGAATGC	NM_180973.2
	(For-in) CGTTTGTGACACTTGACTGC	
	(R-inT7) TAATACGACTCACTATAGGGATGGATCTCACAGTGCTTC	
	(R-out) CAGACAGAGTTTCACCGTTTC	
	(F-out) AGCCAGAGCTTCATCTGC	
<i>myca</i>	(For-in) TCAAGTCCATCATCCTCCAG	NM_131412.1
	(R-inT7) TAATACGACTCACTATAGGGTTCCTGTTATTGCGACCTC	
	(R-out) ATGCACTCTGTCGCCTTC	
	(F-out) AGAGCTCTCAAGGAATGTG	
<i>tnfrsf19</i>	(For-in) CCAGTCGTTCAAAGAGG	NM_001044904.1
	(R-inT7) TAATACGACTCACTATAGGGATCTGCACCTTCTCCTCATC	
	(R-out) TCATCCTTCAGTGTGAGTGG	
	(F-out) GACTCTGAGCCTTGGGATG	
<i>spry2</i>	(For-in) TGGATCAGATCAGGACCATC	NM_001003842.2
	(R-inT7) TAATACGACTCACTATAGGGCCGAGCAACCTCTATTCTC	
	(R-out) GAGACAGTCCCGGATAAACG	
	(F-out) GTTCTTCCTTATCGCCACTG	
	(For-in) CTTCTGTTCTGCTGATCG	
<i>has2</i>	(R-inT7) TAATACGACTCACTATAGGGCACGGAAATACTATACG	NM_153650.2
	(R-out) AGGTCCACATTGAGATAGCAG	
	(F-out) CGCTGTCTCATTATGAAGTG	
	(For-in) GTATGACATGGTTCTTGACG	
	(R-inT7) TAATACGACTCACTATAGGGTTTGGTTCAGATAGGCAAGTC	
	(R-out) CATCACAGAGACAAATCCAGC	

Gene	Probe source	Gene reference
<i>rhov</i>	ZFIN: cb832	NM_001012250
<i>dact1</i>	ZFIN: eu31	NM_214731
<i>tbx16</i>	ZFIN: cb103	NM_131058
<i>zgc:152873</i>	ZFIN: cb498	GenBank: BU808693.1
<i>eprs</i>	ZFIN: IMAGE:7145319	GenBank: BC154533.1
<i>si:ch211-215h6.2</i> (similar to <i>e2f8</i>)	ZFIN: IMAGE:7149356	GenBank: CK686622.1
<i>gpr177</i>	Imagenes: IRB0p991E015D	BC053246
<i>dkk1</i>	Gift of Heisenberg lab	
<i>snail1</i>	Gift of Heisenberg lab	

References for ISH probes or primer sequences for making PCR-based ISH probes for the mouse, chicken and zebrafish genes.

References

- Minowada, G., Jarvis, L. A., Chi, C. L., Neubuser, A., Sun, X., Hacohen, N., Krasnow, M. A. and Martin, G. R. (1999). Vertebrate Sprouty genes are induced by FGF signaling and can cause chondrodysplasia when overexpressed. *Development* **126**, 4465-4475.
- Panitz, F., Krain, B., Hollemann, T., Nordheim, A. and Pieler, T. (1998). The Spemann organizer-expressed zinc finger gene Xegr-1 responds to the MAP kinase/Ets-SRF signal transduction pathway. *EMBO J.* **17**, 4414-4425.