

Table S1. List of PCR primer sequences used to genotype the *Acvr1*, *Smad4*, *Smad1*, *Smad5* and *Smad2* floxed and deletion alleles, the Cre transgene and their respective product sizes.

Gene	Allele	Primer	Primer sequence	PCR product (bp)
Acvr1	Flox	Alk2,F	CCCCCATTGAAGGTTTAGAGAGAC	Flox: 160 + 90
	Deletion	Alk2,R2	CTAAGAGCCATGACAGAGGTTG	
Smad1	Flox	Alk2 del 5'	CATGCCCTACTTGGAGACTGG	WT: 250
	Deletion	Alk2,R2	CTAAGAGCCATGACAGAGGTTG	
Smad1	Flox	Smad1- flox5	TGCTGTGAGTTCCCATTTGGTTCCAAGCAG	Flox: 420
	Deletion	Smad1- flox3	TCTGCTCCGCCACTCATTCCACCCCAGGAT	
Smad2	Flox	Smad1 del	CACCTGTGCCCCCTCCAAGT	Del: 300
	Deletion	Smad1B	GAGCTCTGCTCCGCCACTCA	
Smad2	Flox	Smad2-fx5.2	AATGGACACATACCCCCTTCCAACACACAC	Flox: 640
	Deletion	Smad2-fx3.2	TATGTTCTACCTGTTGTGACTGCTAGTGAC	
Smad4	Flox	Smad2-fx5.2	AATGGACACATACCCCCTTCCAACACACAC	WT: 463
	Deletion	Smad2-del 3'	GCCATCACTCAGGAAGTTCTGTCTTCTGAGCAG	
Smad4	Flox	Smad4_flox5	TTCAGTGGCTATTGATTTGGGCAGCGTAGC	Flox: 490
	Deletion	Smad4_flox3	AAAGACCGCGTGGTCACTAAGGCACCTGAC	
Smad5	Flox	Smad4_del	CTCTTAGTTTTGAGGCGTAAGAGCCACAGG	WT: 430
	Deletion	Smad4_flox3	AAAGACCGCGTGGTCACTAAGGCACCTGAC	
Smad5	Flox	Smad 5-5	GAGCGTCTTCCTTAGCTAATGTG	Flox: 349
	Deletion	Smad 5-3	CACTGGCAAAGCAGAGGTTTCAGA	
Cre	Flox	Smad 5-5	GAGCGTCTTCCTTAGCTAATGTG	WT: 235
	Deletion	Smad 5del	AAAAATCAGCGCTCGACACG	
Cre	Flox	Cre-5	GCATTACCGGTCGATGCAACGAGTGATGAG	Cre: 408
	Deletion	Cre-3	GAGTGAACGAACCTGGTTCGAAATCAGTGCG	