

**Additional File 4.** Primers for split marker (sub)fragments (Primers 1-8) for the knock out of Aft as well as the primer pair for verification of positive knock outs (Primers 9-10), which binds outside the split marker cassette on genomic DNA.

Primer		sequence	TM [°C]	sub-fragment	split marker fragment	split marker fragment size [bp]
1	A_fw	TGCATAAGAACACATCAAACACACG	68	A	AB	2424
2	A_bw	GTTGTCGACCTGCAGCGTACGTGTCAAGCAATCGGGGTG	67			
3	B_fw	CACCCCGATTGCTTGACACGTACGCTGCAGGTCGACAAC	66	B		
4	B_bw	CGGTGAGAATGGCAAAAGCTTATG	70			
5	C_fw	AAGCCCGATGCGCCAGAGTTG	68	C	CD	2360
6	C_bw	CCGTATCCTAAATGGGCAGTTGTAGTGGATCTGATATCACCTA	54			
7	D_fw	TAGGTGATATCAGATCCACTACAACGCCCATTAGGATACGG	67	D		
8	D_bw	GGATGAGGATGACGACGATG	66			
9	Check_fw	GCCACCTGTTTTGAGACTGTAG	66			
10	Check_bw	TGATTTATTTTTGTGATTTGGACGAAG	68			