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Table S4: The number of horses of each phenotype, number of horses homozygous for the reference allele, heterozygous or homozygous for each P variant, the percentage of horses possessing the P variant and the variant allele frequencies in control and PSSM2 and MFM Warmbloods (WB) and Arabians (AR) phenotyped on the basis of muscle histopathology. *P*-values are given for comparisons of the prevalence of the variant in PSSM2 or MFM versus controls using genotypic or dominant models. The predicted amino acid substitutions were based upon the variant positions and Ensembl transcript ENSECAT00000076596.1. There were no significant differences in the prevalence of the variants or allele frequencies between control and PSSM2 or MFM horses of either breed.

	N	Homozygous Reference	Heterozygous	Homozygous Alternative	% Horses with 1 or 2 Copies Alternative Allele	Variant Allele Frequency	P-value	
							Genotypic	Dominant
P2 *MYOT*- rs1138656462								
Control-WB	54	46	7	1	15%	0.08		
PSSM2-WB	55	41	12	2	25%	0.15	0.23	0.44
MFM-WB	37	27	9	1	27%	0.15	0.19	0.82
Control-AR	30	24	5	1	20%	0.12		
PSSM2-AR	18	14	4	0	22%	0.11	1.00	0.34
MFM-AR	30	20	10	0	33%	0.17	0.38	0.23
P3a/P3b *FLNC*- rs1139799323 / *FLNC* - rs1142918816								
Control-WB	54	49	5	0	9%	0.05		
PSSM2-WB	55	49	6	0	11%	0.05	0.74	1.00
MFM-WB	37	32	5	0	14%	0.07	0.74	1.00
Control-AR	30	29	1	0	3%	0.02		
PSSM2-AR	18	17	1	0	6%	0.03	1.00	0.73
MFM-AR	30	29	1	0	3%	0.02	1.00	1.00
P4 *MYOZ3* - rs1142544043								
Control-WB	54	44	10	0	19%	0.09		

PSSM2-WB	55	43	11	1	22%	0.12	0.81	0.82
MFM-WB	37	27	10	0	27%	0.14	0.44	1.00
Control-AR	30	26	4	0	13%	0.07		
PSSM2-AR	18	15	2	1	17%	0.11	1.00	0.44
MFM-AR	30	24	5	1	20%	0.12	0.73	0.73