

The Polymorphism in Various Milk Protein Genes in Polish Holstein-Friesian Dairy Cattle

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Table S1. Selected CSN1S1 genetic variants in relation to nucleotide position, amino acid change within various *Bos genus* CSN1S1 alleles described in the literature [3,5–8].

Nucleotide Position *	Allele (Nucleotide/Amino Acid)					
	A	B	C	D	E	F I
14891-14929	Del.					
17383		G/Ala		A/Thr		
17807		A/Glu	G/Gly			
18901		C/Gln			A/Lys	
18923		C/Ser				T/Leu
19836		A/Glu				T/Asp
26181		A/Glu	G/Gly		G/Gly	

* on the basis of the bovine genomic sequence GenBank Accession No. X59856; Abbreviations used in tables 1–7: Del. — deleted, A — Adenine, C — cytosine, G — guanine, T — Thymine; Ala — Alanine, Arg — Arginine, Asn — Asparagine, Asp — Aspartic acid, Cys — Cysteine, Gln — Glutamine, Glu — Glutamic acid, Gly — Glycine, His — Histidine, Ile — Isoleucine, Leu — Leucine, Lys — Lysine, Met — Methionine, Pro — Proline, Ser — Serine, Thr — Threonine, Val — Valine.

Table S2. Selected CSN1S2 variants in relation to nucleotide position, amino acid change within various *Bos genus* CSN1S2 alleles described in the literature [3,5–7,9].

Nucleotide Position *	SNP Name **	Allele (Nucleotide/Amino Acid)			
		A	B	C	D
6227		C/Ser	T/Phe		
7568		A/Glu		G/Gly	
8401		G/Ala		A/Thr	
8879	CSN1S2	G/Glu			T/(Asp) ^{-del}
11018		C/Thr		T/Ile	

*on the basis of the bovine genomic sequence GenBank Accession No. M94327; ** the name assigned to SNP that was present in microarrays.

Table S3. Selected CSN2 genetic variants in relation to nucleotide position, amino acid change within various *Bos genus* CSN2 alleles described in the literature [3,5–7].

Nucleotide Position *	SNP Name **	Allele (Nucleotide/Amino Acid)									
		A1	A2	A3	B	C	I	D	E	F	G
6690	CSN2_2	G/Glu	G/Glu	G/Glu	G/Glu	A/Lys	G/Glu				
8101	CSN2_3	A/His	C/Pro	C/Pro	A/His	A/His	C/Pro	C/Pro	C/Pro		
8178	CSN2_4	A/Met	A/Met	A/Met	A/Met	A/Met	C/Leu				
8219	CSN2_5	C/His	C/His	A/Gln	C/His	C/His	C/His				
8267	CSN2_6	C/Ser	C/Ser	C/Ser	G/Arg	C/Ser	C/Ser				Leu
8356	CSN2_1	C/Prp								T/Leu	

*on the basis of the bovine genomic sequence GenBank Accession No. X14711; ** the name assigned to SNP that was present in microarrays.

Table S4. Selected CSN3 genetic variants in relation to nucleotide position, amino acid change within various *Bos genus* CSN3 alleles described in the literature [3,5–8].

Nucleotide Position *	SNP Name **	Allele (Nucleotide/Amino Acid)								
		A	A1	B	C	D	E	G1	H	I
12950	CSN3_1	C/Arg						T/Cys		
12951	CSN3_2	G/Arg		G/Arg	A/His	A/His	G/Arg		G/Arg	
12971	CSN3_3	T/Ser								G/Ala
13065	CSN3_4	C/Thr		C/Thr	C/Thr		C/Thr		T/Ile	
13068	CSN3_5	C/Thr		T/Ile	T/Ile					
13104	CSN3_6	A/Asp		C/Ala	A/Asp		A/Asp		A/Asp	
13111	CSN3_7	A/Pro	G/Pro							
13124	CSN3_8	A/Ser		A/Ser	A/Ser		G/Gly		A/Ser	
13165	CSN3_9	A/Ala		G/Ala	A/Ala		A/Ala		A/Ala	

*on the basis of the bovine genomic sequence GenBank Accession No. AY380228; ** the name assigned to SNP that was present in microarrays.

Table S5. Selected PAEP genetic variants in relation to nucleotide position, amino acid change within various *Bos genus* PAEP alleles described in the literature [3,5–7].

Nucleotide Position *	SNP Name **	Allele (Nucleotide/Amino Acid)		
		A	B	D
3065	PAEP_1		G/Glu	C/Gln
3982	PAEP_2	T/Asp	C/Gly	
5174	PAEP_3	C/Asn	T/Asn	
5223		G/Val	T/Val	
5261		GGT/Val	GGC(TGC)/Ala	
5263	PAEP_4	T/Val	C/Ala	

*on the basis of the bovine genomic sequence GenBank Accession No. X14710; ** the name assigned to SNP that was present in microarrays.