

Table S1 Nucleotide sequences (32 bp probes) used for Megablast search (fasta format).

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>CD32_Probe1_V1_FCGR2A
TTTAGGGCCGGCAGCAATGACGGTGGGTCCTA
>CD32_Probe2_V2_FCGR2B_bison
TTTAGGGCCGGCAGCAATGACAGTGGGTCCTA
>CD32_Probe3_V3
TTTAGGGCCGGCAGCAACGACGGTGGGTCCTA
>CD32_Probe4_V4_FCGR2B
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>CD32_Probe5_V5
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>CD32_Probe6_V6
TTTAGGGCCAGCAGCAATGACAGTGGGTCCTA
>CD32_Probe7_V7_FCGR2C
TTTAGGGCCAGCAGCAACGACAGTGGGTCCTA
>CD32_Probe8_V8
TTTAGGGCCAGCAGCAACGACGGTGGGTCCTA
>CD18_Probe9
CAGCTGTCCCCACAGGAAGTGACGCTCTACCT
>HOXB7_Probe10_ex1_BTA19
ATGAGTTCATTGTATTATGCGAATGCTTTATT
>HOXA7_Probe11_ex1_BTA4
ATGAGTTCTTCGTATTATGTGAACGCGCTTTT
>SRY_Probe12_ex1_BTY
ATGTTTCAGAGTATTGAACGACGATGTTTACAG
>CD32_V4B_FCGR2B
AGGCAACCTCACCACGTGGTTCCATAACGGGA
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Table S2 Comparison of number of RNA-probe hits and expression levels between FCGR2s (CD32) and CD18, in Holstein milk.

SRA	Sample	Total read count	Probe hits									Hit sum	CD32 RPKM	CD18 RPKM
			1	2	3	4	5	6	7	8	9			
SRX2235349	Y10ST0132-W2-Milk-RNA	30,480,908	10	0	0	88	0	0	0	0	541	639	100.5	554.7
SRX2235243	213012869-W2-Milk-RNA	28,918,832	8	0	0	22	0	0	12	0	443	485	45.4	478.7
SRX2235316	214016531-W2-Milk-RNA	30,449,572	0	0	0	24	0	0	15	0	410	449	40.0	420.8
SRX2235365	213012837-W2-Milk-RNA	18,179,706	0	0	0	7	0	0	3	0	439	449	17.2	754.6
SRX2235321	214016548-W2-Milk-RNA	45,013,510	15	0	0	32	0	0	32	0	362	441	54.8	251.3
SRX2235318	214016543-W2-Milk-RNA	41,897,140	0	0	0	177	0	0	103	0	68	348	208.8	50.7
SRX2235345	Y10ST0052-W2-Milk-RNA	26,493,242	2	0	0	40	0	0	0	0	299	341	49.5	352.7
SRX2235188	213012829-W2-Milk-RNA	40,398,796	3	0	0	42	0	0	8	0	277	330	41.0	214.3
SRX2235232	213012868-W2-Milk-RNA	17,678,968	0	0	0	0	0	0	3	0	306	309	5.3	540.9
SRX2235361	211012549-W2-Milk-RNA	23,695,512	0	0	1	22	0	0	9	0	247	279	42.2	325.7
SRX2235210	213012834-W2-Milk-RNA	14,517,104	2	0	0	6	0	0	9	0	235	252	36.6	505.9
SRX2235341	Y09ST0117-W2-Milk-RNA	25,687,198	4	0	0	42	0	0	0	0	203	249	56.0	247.0
SRX2235340	Y09ST0099-W2-Milk-RNA	21,342,290	10	0	0	54	0	0	0	0	173	237	93.7	253.3
SRX2235368	213012901-W2-Milk-RNA	20,876,820	0	0	0	19	0	0	7	0	209	235	38.9	312.8
SRX2235367	213012871-W2-Milk-RNA	16,301,126	3	0	0	2	0	0	10	0	220	235	28.8	421.8
SRX2235254	208000985-W2-Milk-RNA	18,609,806	0	0	0	13	0	0	0	0	219	232	21.8	367.7
SRX2235376	214016522-W2-Milk-RNA	19,981,694	5	0	0	7	0	1	7	0	205	225	31.3	320.6
SRX2235394	Y09ST0100-W2-Milk-RNA	27,331,010	1	0	0	17	0	0	6	0	176	200	27.4	201.2
SRX2235392	Y09ST0076-W2-Milk-RNA	16,939,670	0	0	0	0	0	0	9	0	184	193	16.6	339.4
SRX2235362	213012796-W2-Milk-RNA	15,556,506	1	0	0	23	0	0	0	0	163	187	48.2	327.4
SRX2235353	210004788-W2-Milk-RNA	34,156,568	5	0	0	55	0	0	1	0	125	186	55.8	114.4
SRX2235386	210004820-W2-Milk-RNA	25,894,168	10	0	2	66	0	0	2	0	96	176	96.5	115.9
SRX2235348	Y10ST0086-W2-Milk-RNA	13,871,560	0	0	0	32	0	0	0	0	133	165	72.1	299.6
SRX2235364	210004794-W2-Milk-RNA	22,742,542	0	0	0	24	0	0	0	0	138	162	33.0	189.6
SRX2235381	214016570-W2-Milk-RNA	22,677,018	2	0	0	111	0	0	0	0	47	160	155.7	64.8
SRX2235339	Y09ST0054-W2-Milk-RNA	23,314,056	0	0	0	7	0	0	12	0	133	152	25.5	178.3
SRX2235199	213012832-W2-Milk-RNA	16,135,480	0	0	0	11	0	0	2	0	139	152	25.2	269.2
SRX2235342	209021321-W2-Milk-RNA	12,847,312	1	0	0	31	0	0	1	0	107	140	80.3	260.3
SRX2235221	213012838-W2-Milk-RNA	11,794,498	2	0	0	3	0	0	1	0	134	140	15.9	355.0
SRX2235177	213012826-W2-Milk-RNA	24,880,104	1	0	0	19	0	0	10	0	106	136	37.7	133.1
SRX2235355	210004816-W2-Milk-RNA	10,383,028	2	0	1	22	0	0	0	0	109	134	75.2	328.1
SRX2235317	214016533-W2-Milk-RNA	27,837,496	0	0	0	4	0	0	16	0	113	133	22.5	126.9
SRX2235373	214016499-W2-Milk-RNA	28,657,822	0	0	0	53	0	0	3	0	74	130	61.1	80.7
SRX2235354	210004803-W2-Milk-RNA	16,343,722	3	0	0	14	0	0	11	0	101	129	53.5	193.1
SRX2235319	214016546-W2-Milk-RNA	24,965,984	1	0	0	33	0	0	26	0	66	126	75.1	82.6
SRX2235301	Y06BO0004-W2-Milk-RNA	6,705,334	2	0	0	15	0	0	0	0	107	124	79.2	498.7
SRX2235378	214016540-W2-Milk-RNA	20,432,112	1	0	0	13	0	0	0	0	99	113	21.4	151.4
SRX2235331	209021318-W2-Milk-RNA	10,553,652	0	0	0	6	0	0	0	0	104	110	17.8	308.0
SRX2235306	Y10ST0126-W2-Milk-RNA	7,716,406	0	0	0	1	0	0	4	0	105	110	20.2	425.2
SRX2235305	Y10ST0079-W2-Milk-RNA	8,508,420	2	0	0	10	0	0	3	0	90	105	55.1	330.6
SRX2235344	Y10ST0047-W2-Milk-RNA	16,705,320	0	0	0	12	0	0	0	0	91	103	22.4	170.2
SRX2235288	214016509-W2-Milk-RNA	16,609,864	0	0	0	6	0	0	1	0	96	103	13.2	180.6
SRX2235299	214016523-W2-Milk-RNA	24,236,758	4	0	0	87	0	0	0	0	10	101	117.3	12.9
SRX2235277	214016494-W2-Milk-RNA	12,940,436	0	0	0	8	0	0	9	0	84	101	41.1	202.9
SRX2235358	210005486-W2-Milk-RNA	7,163,216	0	0	0	3	0	0	3	0	93	99	26.2	405.7
SRX2235363	213012818-W2-Milk-RNA	12,392,676	0	0	0	9	0	0	2	0	87	98	27.7	219.4
SRX2235396	Y09ST0153-W2-Milk-RNA	13,279,474	0	0	0	40	0	0	0	0	57	97	94.1	134.1
SRX2235371	214016492-W2-Milk-RNA	13,705,344	2	0	0	32	0	0	0	0	60	94	77.5	136.8
SRX2235315	Y10ST0106-W2-Milk-RNA	12,607,454	0	0	0	4	0	0	2	0	82	88	14.9	203.3
SRX2235369	213012919-W2-Milk-RNA	31,039,956	0	0	0	23	0	0	26	0	37	86	49.3	37.3
SRX2235304	Y09ST0083-W2-Milk-RNA	7,800,166	4	0	0	2	0	0	0	0	76	82	24.0	304.5
SRX2235289	208000940-W2-Milk-RNA	9,973,050	0	0	0	0	0	0	0	0	82	82	0.0	256.9
SRX2235395	Y09ST0128-W2-Milk-RNA	16,016,804	0	0	0	11	0	0	18	0	52	81	56.6	101.5
SRX2235295	214016489-W2-Milk-RNA	9,471,438	2	0	0	19	0	0	0	0	60	81	69.3	198.0
SRX2235393	Y09ST0078-W2-Milk-RNA	9,676,464	0	0	0	11	0	0	0	0	65	76	35.5	209.9
SRX2235377	214016527-W2-Milk-RNA	23,508,288	0	0	0	63	0	0	0	0	11	74	83.7	14.6
SRX2235310	214016526-W2-Milk-RNA	23,607,534	0	0	0	34	0	0	13	0	25	72	62.2	33.1
SRX2235338	Y09ST0026-W2-Milk-RNA	26,595,194	1	0	0	24	0	0	2	0	39	66	31.7	45.8
SRX2235293	213012898-W2-Milk-RNA	4,584,264	0	0	0	11	0	0	2	0	49	62	88.6	334.0
SRX2235266	213012914-W2-Milk-RNA	12,837,108	0	0	0	9	0	0	9	0	43	61	43.8	104.7
SRX2235390	Y04BO0166-W2-Milk-RNA	13,976,318	4	0	0	6	0	0	4	0	47	61	31.3	105.1
SRX2235379	214016550-W2-Milk-RNA	24,224,716	0	0	0	13	0	0	27	1	18	59	52.9	23.2
SRX2235294	213012904-W2-Milk-RNA	9,372,862	0	0	0	8	0	0	6	0	45	59	46.7	150.0
SRX2235291	211012561-W2-Milk-RNA	4,487,086	0	0	0	11	0	0	3	0	45	59	97.5	313.4
SRX2235255	213012893-W2-Milk-RNA	11,382,064	2	0	2	17	0	0	0	0	37	58	57.7	101.6
SRX2235346	Y10ST0081-W2-Milk-RNA	8,742,160	0	0	0	22	0	0	9	0	26	57	110.8	92.9
SRX2235290	208000943-W2-Milk-RNA	7,165,874	0	0	0	3	0	0	0	0	54	57	13.1	235.5
SRX2235292	213012889-W2-Milk-RNA	5,177,104	0	0	0	3	0	0	0	0	51	54	18.1	307.8
SRX2235356	210004823-W2-Milk-RNA	11,763,706	3	0	0	18	0	0	0	0	32	53	55.8	85.0
SRX2235372	214016496-W2-Milk-RNA	25,479,902	0	0	0	24	0	0	25	0	1	50	60.1	1.2
SRX2235374	214016508-W2-Milk-RNA	17,872,296	1	0	0	11	0	0	9	0	28	49	36.7	49.0
SRX2235296	214016563-W2-Milk-RNA	9,263,740	0	0	0	2	0	0	6	0	40	48	27.0	134.9
SRX2235322	214016569-W2-Milk-RNA	22,603,920	0	0	0	30	0	0	0	0	15	45	41.5	20.7
SRX2235380	214016555-W2-Milk-RNA	12,594,296	0	0	0	8	0	0	5	0	32	45	32.3	79.4
SRX2235360	210005511-W2-Milk-RNA	24,511,974	5	0	0	28	0	0	0	0	11	44	42.1	14.0
SRX2235350	Y10ST0136-W2-Milk-RNA	10,947,772	0	0	0	6	0	0	0	0	37	43	17.1	105.6
SRX2235285	Y10ST0036-W2-Milk-RNA	4,577,696	1	0	0	10	0	0	0	0	30	41	75.1	204.8
SRX2235366	213012845-W2-Milk-RNA	10,152,012	0	0	0	22	0	0	0	0	17	39	67.7	52.3
SRX2235347	Y10ST0082-W2-Milk-RNA	17,935,162	0	0	0	30	0	0	1	0	5	36	54.0	8.7
SRX2235279	213012766-W2-Milk-RNA	2,394,778	0	0	0	9	0	0	0	0	26	35	117.4	339.3
SRX2235357	210004824-W2-Milk-RNA	8,029,858	0	0	0	4	0	0	10	0	20	34	54.5	77.8
SRX2235280	213012816-W2-Milk-RNA	3,969,810	0	0	0	3	0	0	0	0	29	32	23.6	228.3
SRX2235391	Y09ST0062-W2-Milk-RNA	14,806,576	3	0	1	15	0	0	0	0	11	30	40.1	23.2
SRX2235283	214016518-W2-Milk-RNA	3,076,422	0	0	0	2	0	0	0	0	28	30	20.3	284.4
SRX2235352	210004789-W2-Milk-RNA	10,517,488	0	0	0	11	0	0	0	0	15	26	32.7	44.6
SRX2235359	210005510-W2-Milk-RNA	12,409,976	0	0	0	10								

Table S3 Comparison of number of genomic-probe hits and gene copies between FCGR2s (CD32) and control genes.

SRA	Total read count	Sex	Breed	Probe hits											Allele coverage	FCGR2A V1	FCGR2B V4	FCGR2C V7	CD32 total	HOXB7 probe9	HOXA7 probe10	SRY probe11	CD32 copy #
				1	2	3	4	5	6	7	8	9	10	11									
SRX5388796	470,474,464	male	Holstein	13	0	0	7	0	0	10	0	23	21	4	12	1.1	0.6	0.8	2.5	1.9	1.8	0.3	3.1
SRX5388795	588,981,714	male	Holstein	33	0	0	8	0	0	12	0	35	33	11	15	2.2	0.5	0.8	3.6	2.4	2.2	0.7	3.4
SRX5388794	489,874,890	male	Holstein	0	0	0	20	0	0	16	0	23	10	8	12	0.0	1.6	1.3	2.9	1.9	0.8	0.6	4.4
SRX5388793	587,942,612	male	Holstein	9	0	0	25	0	0	14	0	23	18	9	15	0.6	1.7	0.9	3.2	1.6	1.2	0.6	4.8
SRX5388792	567,993,322	male	Holstein	0	0	0	28	0	0	9	0	23	25	6	14	0.0	2.0	0.6	2.6	1.6	1.7	0.4	3.4
SRX5388791	628,575,808	male	Holstein	21	0	0	25	0	0	0	0	19	24	11	16	1.3	1.6	0.0	2.9	1.2	1.5	0.7	4.3
SRX5388790	424,180,494	male	Holstein	14	0	0	10	0	0	0	0	18	20	6	11	1.3	0.9	0.0	2.2	1.7	1.9	0.6	2.7
SRX5388788	576,077,866	male	Holstein	16	0	0	17	0	0	9	0	24	17	5	14	1.1	1.2	0.6	2.9	1.7	1.2	0.3	4.6
SRX5388783	555,070,320	male	Holstein	22	0	0	11	0	0	5	0	13	23	12	14	1.6	0.8	0.4	2.7	0.9	1.6	0.9	4.0
SRX5388782	535,278,424	male	Holstein	9	0	0	17	0	0	0	0	26	17	6	13	0.7	1.3	0.0	1.9	1.9	1.3	0.4	2.7
SRX5388772	331,842,454	female	Holstein	3	0	0	4	0	0	3	0	4	5	3	8	0.4	0.5	0.4	1.2	0.5	0.6	0.4	4.2
SRX5388760	333,947,112	male	Holstein	5	0	0	5	0	0	0	0	8	4	2	8	0.6	0.6	0.0	1.2	1.0	0.5	0.2	3.6
SRX5388759	351,401,114	female	Holstein	7	0	0	0	0	0	2	0	9	6	0	9	0.8	0.0	0.2	1.0	1.0	0.7	0.0	2.4
SRX5388722	621,669,354	male	Holstein	22	0	0	9	0	0	23	0	21	35	3	16	1.4	0.6	1.5	3.5	1.3	2.2	0.2	4.6
SRX5388721	466,874,314	male	Holstein	5	0	0	12	0	0	8	0	8	22	13	12	0.4	1.0	0.7	2.1	0.7	1.9	1.1	2.9
SRX5388720	421,586,302	male	Holstein	0	0	0	13	0	0	14	0	8	15	6	11	0.0	1.2	1.3	2.5	0.8	1.4	0.6	4.7
SRX5388719	564,266,702	male	Holstein	22	0	0	15	0	0	0	0	17	34	13	14	1.5	1.1	0.0	2.6	1.2	2.4	0.9	2.9
SRX5388718	618,128,856	male	Holstein	30	0	0	11	0	0	11	0	27	18	10	16	1.9	0.7	0.7	3.3	1.7	1.2	0.6	4.7
SRX5388717	580,249,376	male	Holstein	14	0	0	23	0	0	7	0	21	14	16	15	1.0	1.6	0.5	3.0	1.4	1.0	1.1	4.3
SRX5388716	571,900,668	male	Holstein	0	0	0	25	0	0	20	0	16	14	7	14	0.0	1.7	1.4	3.1	1.1	1.0	0.5	6.1
SRX5388798	333,869,172	ND	Angus	6	0	0	6	0	0	0	0	4	3	1	8	0.7	0.7	0.0	1.4	0.5	0.4	0.1	7.5
SRX5388780	493,208,872	male	Angus	15	0	0	20	0	0	0	0	10	20	11	12	1.2	1.6	0.0	2.8	0.8	1.6	0.9	4.3
SRX5388779	388,734,538	male	Angus	8	0	0	4	0	0	7	0	8	16	5	10	0.8	0.4	0.7	1.9	0.8	1.6	0.5	3.3
SRX5388778	451,330,720	male	Angus	2	0	0	4	0	0	2	0	8	8	2	11	0.2	0.4	0.2	0.7	0.7	0.7	0.2	2.2
SRX5388634	229,153,424	male	Hereford	0	0	0	11	0	0	0	0	2	4	1	6	0.0	1.9	0.0	1.9	0.3	0.7	0.2	7.9
SRX5388768	134,268,496	male	Hereford	1	0	0	3	0	0	0	0	3	3	1	3	0.3	0.9	0.0	1.2	0.9	0.9	0.3	2.9
SRX5388764	206,098,750	male	Hereford	4	0	0	4	0	0	0	0	1	4	1	5	0.8	0.8	0.0	1.5	0.2	0.8	0.2	6.7
SRX5388417	507,699,238	male	Hereford	18	0	0	20	0	0	0	0	16	25	10	13	1.4	1.6	0.0	3.0	1.3	2.0	0.8	3.7
SRX5388706	345,045,756	male	Charolaise	2	0	0	4	0	0	4	0	5	11	5	9	0.2	0.5	0.5	1.2	0.6	1.3	0.6	2.4
SRX5388705	371,643,412	male	Charolaise	10	0	0	14	0	0	0	0	5	5	3	9	1.1	1.5	0.0	2.6	0.5	0.5	0.3	9.2
SRX5388641	454,126,982	male	Charolaise	4	0	0	10	0	0	0	0	10	5	2	11	0.3	0.9	0.0	1.2	0.9	0.4	0.2	4.1
SRX5388510	427,558,928	male	Charolaise	0	0	0	16	0	0	0	0	9	10	6	11	0.0	1.5	0.0	1.5	0.8	0.9	0.6	3.2
SRX5388642	402,309,450	male	Limousine	3	0	0	6	0	0	0	0	5	3	4	10	0.3	0.6	0.0	0.9	0.5	0.3	0.4	3.8
SRX5388640	434,740,428	male	Limousine	0	0	0	18	0	0	0	0	8	8	3	11	0.0	1.6	0.0	1.6	0.7	0.7	0.3	4.7
SRX5388639	366,943,370	male	Limousine	1	0	0	6	0	0	0	0	10	4	2	9	0.1	0.6	0.0	0.8	1.1	0.4	0.2	2.2
SRX5388637	418,123,230	male	Limousine	0	0	0	9	0	0	0	0	9	10	1	11	0.0	0.9	0.0	0.9	0.9	1.0	0.1	2.3
SRX7427485	571,200,404	male	Simmental	15	0	0	6	0	0	9	0	27	17	10	14	1.0	0.4	0.6	2.1	1.9	1.2	0.7	2.8
SRX7427463	607,416,724	male	Simmental	5	0	0	16	0	0	7	0	21	21	17	15	0.3	1.0	0.5	1.8	1.4	1.4	1.1	2.4
SRX7427462	587,475,052	female	Simmental	11	0	0	14	0	0	5	0	23	27	0	15	0.7	0.9	0.3	2.0	1.6	1.8	0.0	2.4
SRX5388697	493,971,372	male	Simmental	0	0	0	10	0	0	0	0	14	6	2	12	0.0	0.8	0.0	0.8	1.1	0.5	0.2	2.3