

**Supplemental Table 5. Comparing the level of band 3-ankyrin macro-complex and 4.1R junctional complex components, transport proteins, adhesion proteins, cytoskeleton proteins and metabolic enzymes between adult and cord RBCs and reticulocytes.**

See legend for Supplemental Table 4 for experimental details. Values show the ratio of protein levels between adult and cord RBCs and adult and cord reticulocytes in the membrane and or cytosol fraction. Proteins were quantified from at least 1 unique peptide. Proteins quantified from 2 or more unique peptides that differed in level by 2 fold or more are in bold text. \* = protein did not differ in level when compared in second cord sample. Peptides and unique peptides: the total number of peptide sequences and number of unique peptides identified for that protein.

Accession	Description	Unique peptides	Peptides	RBC adult/ cord	Retic adult/ cord
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**Proteins of the band 3-ankyrin macro-complex and 4.1R junctional complex**

P60709	Actin, cytoplasmic 1	8	19	1.440	1.292
A2A3N8	Adducin (alpha)	2	25	1.585	1.480
P35612	Adducin (beta)	10	32	1.775	1.413
E7EVE3	Ankyrin 1	81	88	1.583	1.547
Q53ER1	Ankyrin 1 isoform 5 variant	1	3	1.685	1.454
Q12955	Ankyrin 3	1	8	1.453	1.045
P02730	Band 3 anion transport protein	27	27	1.750	1.648
E9PB22	CD47	3	3	1.706	1.675
Q08495	Dematin	20	20	1.490	1.513
B4DZV5	55 kDa erythrocyte membrane protein (p55)	19	19	1.138	1.083
B8Q185	Glycophorin A MNS blood group	3	3	1.333	1.847
P04921	Glycophorin-C	4	4	1.646	1.432
Q14773	Intercellular adhesion molecule 4	5	5	0.510	0.832
P23276	Kell blood group glycoprotein	8	8	1.594	1.121
P51811	Membrane transport protein XK	6	6	0.833	1.103
P11171	Protein 4.1	8	44	1.216	1.553
Q4KKX0	Protein 4.2	31	31	1.693	1.488
F5H250	RhAG	1	1	0.654	2.414
E7EWZ5	Rh blood group, CcEe antigens	1	2	2.388	2.099
Q02161	Blood group Rh(D) polypeptide	1	2	1.269	3.548
P11166	GLUT1	8	8	1.012	1.276
P02549	Spectrin alpha chain, erythrocyte	164	165	1.754	1.539
P11277	Spectrin beta chain, erythrocyte	153	154	1.729	1.508
P28289	Tropomodulin-1	22	22	1.457	1.473
Q5JR82	Tropomodulin 4	1	1	4.415	0.741
F5H7S3	Tropomyosin 1	18	1	1.598	1.727
D9YZV5	Tropomyosin 1 isoform 4	1	17	1.346	1.256

D9YZV7	Tropomyosin 1 isoform 6	2	15	1.347	1.350
Q5VU58	Tropomyosin 3	2	20	1.480	1.759

### Transport proteins

P04920	Anion exchange protein 2	1	1	0.586	1.223
E9PC21	Aquaporin 1	2	2	<b>2.104</b>	1.565
P20020	Plasma membrane calcium-transporting ATPase 1	9	19	1.287	1.122
P23634	Plasma membrane calcium-transporting ATPase 4	16	26	1.259	0.983
F5H3A1	ATPase, Na <sup>+</sup> /K <sup>+</sup> Transporting, Alpha 1 Polypeptide	19	19	1.539	0.681
P14415	Sodium/potassium-transporting ATPase subunit beta-2	1	1	1.751	1.584
P54709	Sodium/potassium-transporting ATPase subunit beta-3	4	4	0.785	0.483
P02730	Band 3 anion transport protein	27	27	1.750	1.648
Q99808	Equilibrative nucleoside transporter 1	9	9	0.699	0.658
O43826	Glucose-6-phosphate translocase	1	1	1.851	1.129
Q15758	Neutral amino acid transporter B(0)	3	3	0.471	0.428*
Q01650	Large neutral amino acids transporter small subunit 1	3	3	0.891	0.376*
O75387	Large neutral amino acids transporter small subunit 3	1	1	5.020	0.712
P53985	Monocarboxylate transporter 1	6	6	0.666	1.517
F5H250	Rh-Associated Glycoprotein (RhAG)	1	1	0.654	2.414
F5H741	Solute Carrier Family 11, Proton-Coupled Divalent Metal Ion Transporter, Member 2	1	1	1.285	1.046
P11166	Solute carrier family 2, facilitated glucose transporter member 1 (GLUT1)	8	8	1.012	1.276
P14672	Solute carrier family 2, facilitated glucose transporter member 4	1	1	2.221	0.637
Q8TD20	Solute carrier family 2, facilitated glucose transporter member 12	1	1	0.114	0.209
B7Z844	Solute Carrier Family 2 Facilitated Glucose Transporter, Member 14	2	2	1.802	1.071
F5H843	Solute Carrier Family 16, Monocarboxylate Transporter, Member 7	1	1	1.082	1.124
E7EMT4	Solute Carrier Family 39, Zinc Transporter, Member 7	1	1	0.957	0.872
Q9NP59	Solute carrier family 40 member 1	4	4	1.335	1.104
B7Z6X9	Solute Carrier Family 43, Amino	3	3	1.185	1.017

	Acid System L Transporter, Member 2				
E9PS74	Solute Carrier Family 43, Member 3	5	5	1.627	0.821
Q13336	Urea transporter 1 (Kidd blood group)	3	7	1.512	1.307
Q9Y6M5	Zinc transporter 1	4	4	1.590	0.873

### Adhesion proteins

P50895	Basal cell adhesion molecule	10	10	<b>3.236</b>	1.560
B6EAT9	CD44	6	6	1.274	0.771
E9PB22	CD47	3	3	1.706	1.675
B1AMW1	CD58	2	2	1.752	1.394
A6NIW1	CD99	1	1	2.840	1.129
Q96PL5	Erythroid membrane-associated protein	10	10	1.397	1.128
P05556	Integrin beta-1	7	7	0.861	0.663
Q14773	Intercellular adhesion molecule 4	5	5	0.510	0.832
O75326	Semaphorin-7A	8	8	<b>2.152</b>	1.399

### Cytoskeleton proteins

F5GXS2	Actinin alpha 4	3	3	0.494	0.670
P60709	Actin, cytoplasmic 1	8	19	1.440	1.292
P63267	Actin, gamma	1	12	1.585	1.334
F5H3P5	Actin-Related Protein 3 Homolog	5	5	0.487	0.989
P61160	Actin-related protein 2	3	4	0.621	1.069
P61163	Alpha-centractin	13	14	0.897	0.683
B49LQ7	Actin-related protein 2/3 complex subunit 1A	2	2	0.568	0.971
O15143	Actin-related protein 2/3 complex subunit 1B	1	1	0.683	1.123
O15144	Actin-related protein 2/3 complex subunit 2	7	7	0.514	1.001
P59998	Actin-related protein 2/3 complex subunit 4	4	4	0.406*	0.985
B1ALC0	Actin-related protein 2/3 complex subunit 5	1	1	0.587	1.000
Q9BPX5	Actin-related protein 2/3 complex subunit 5-like protein	1	1	0.504	1.080
A2A3N8	Adducin (alpha)	2	25	1.151	1.590
P35612	Adducin (beta)	10	32	1.775	1.413
Q9UEY8	Adducin (gamma)	9	9	0.475	1.022
Q53ER1	Ankyrin 1 isoform 5 variant	1	3	1.685	1.454
Q12955	Ankyrin 3	1	8	1.453	1.045
E7EVE3	Ankyrin 1	81	88	1.583	1.547
B1AK87	Capping protein (Actin filament) muscle Z-line, beta	6	6	0.928	0.897

C9JUG7	Capping Protein (Actin Filament) Muscle Z-Line, Alpha 2	1	2	1.124	0.897
P52907	F-actin-capping protein subunit alpha-1	5	6	0.872	0.841
E9PP50	Cofilin 1	3	3	0.743	0.602
Q08495	Dematin	20	20	1.490	1.513
P15924	Desmoplakin	1	2		
B4DYA6	Destrin isoform CRA_a	2	3	0.734	0.627
Q8TD57	Dynein heavy chain 3, axonemal	1	2		
E9PFS5	Dynactin 1	21	21	0.918	0.675
Q5T1I6	Dynactin 3	3	3	1.140	0.817
E5RI97	Dynactin 4	1	1	0.832	0.808
E7EWW81	Dynactin 5	1	1	0.795	0.699
Q13561	Dynactin 2	14	14	0.944	0.694
P50570	Dynammin-2	1	25	1.394	1.317
Q8TD57	Dynein heavy chain 3, axonemal	1	2		
P63167	Dynein light chain 1, cytoplasmic	1	1	0.338	0.576
Q96FJ2	Dynein light chain 2, cytoplasmic	1	1	0.944	0.824
Q5HY54	Filamin A	13	13	0.693	0.819
E7EN95	Filamin B	1	1	0.081	0.334
F5H8M4	Gelsolin	2	2	1.991	1.343
P33176	Kinesin-1 heavy chain	5	5	1.146	0.754
B7WPD9	Kinesin Family Member 26B	1	1	0.478	1.172
Q15691	Microtubule-associated protein RP/EB family member 1	2	2	0.689	0.689
F5H678	Myosin VB	1	1	1.713	1.300
P12829	Myosin light chain 4	8	8	0.613	0.869
P60660	Myosin light polypeptide 6	3	3	0.884	0.984
P19105	Myosin regulatory light chain 12A	4	4	<b>0.339</b>	0.918
Q96A32	Myosin regulatory light chain 2	1	1	0.985	0.914
Q3MIV8	Myosin, heavy chain 11	1	13	0.356*	0.536
Q9BUF9	Myosin, light chain 9, regulatory	2	2	0.613	0.780
P35580	Myosin-10	74	88	<b>0.175</b>	0.737
P35579	Myosin-9	83	96	<b>0.375</b>	0.796
O94832	Myosin-Id	1	1	1.712	1.118
Q13459	Myosin-IXb	1	1	1.083	0.707
Q9NYT0	Pleckstrin-2	1	1	0.670	0.448*
A0JP02	Pleckstrin Homology Domain Containing, Family A Member 5	1	1	0.904	0.513
P07737	Profilin-1	5	5	1.371	0.546
D6RGI3	Septin 11, isoform CRA_b	3	5	0.343*	1.531
B5MCX3	Septin 2	5	5	0.369*	1.527
B4DNE4	Septin 7	10	11	0.508	1.276
A6NMH6	Septin 8	5	7	0.453*	1.674
Q9UHD8	Septin-9	1	1	0.941	0.834
P02549	Spectrin alpha chain, erythrocyte	164	165	1.287	1.564
P11277	Spectrin beta chain, erythrocyte	153	154	1.280	1.465

O15020	Spectrin beta chain, brain 2	1	1	0.518	0.709
P16949	Stathmin	14	14	0.611	0.560
Q5TCU6	Talin 1	40	40	0.433	0.583
P28289	Tropomodulin-1	22	22	1.457	1.473
Q5JR82	Tropomodulin 4	1	1	4.415	0.741
F5H7S3	Tropomyosin 1	1	18	1.598	1.727
D9YZV5	Tropomyosin 1 (Alpha) isoform 4	1	17	0.823	1.116
D9YZV7	Tropomyosin 1 (Alpha) isoform 6	2	15	0.890	1.275
Q5VU58	Tropomyosin 3	2	20	1.129	1.203
Q9BQE3	Tubulin alpha-1C chain	4	13	0.566	0.569
P07437	Tubulin beta chain	1	12	0.248*	0.431*
P68371	Tubulin beta-2C chain	1	12	0.562	0.611
A8MUB1	Tubulin alpha-4A	1	10	0.037	0.331
F5H7T3	Vinculin	1	1	0.300*	1.167

### Metabolic enzymes

P00568	Adenylate kinase isoenzyme	11	12	1.633	0.865
P00915	Carbonic anhydrase 1	11	11	<b>8.706</b>	1.075
P00918	Carbonic anhydrase 2	11	11	<b>4.976</b>	1.470
P04040	Catalase	30	30	1.135	0.903
B7Z2X9	Enolase	5	8	0.811	0.698
P04075	Fructose-bisphosphate aldolase A	15	20	0.485	1.038
P09972	Fructose-bisphosphate aldolase C	5	10	0.576	1.386
E7ET32	Galactose-1-phosphate uridylyltransferase	1	1	0.863	0.606
P11413	Glucose-6-phosphate 1- dehydrogenase	13	13	0.575	0.641
P06744	Glucose-6-phosphate isomerase	19	19	0.494	0.771
P07203	Glutathione peroxidase 1	2	2	1.358	0.695
C8KIL8	Glutathion reductase delta8 alternative splicing variant	7	7	1.021	0.736
P04406	Glyceraldehyde-3-phosphate dehydrogenase	16	16	0.538	1.322
E9PCK0	Hexokinase 1	6	6	0.545	0.587
Q16775	Hydroxyacylglutathione hydrolase	6	6	0.960	0.999
P00492	Hypoxanthine-guanine phosphoribosyltransferase	5	5	1.093	0.763
E9PH51	L-lactate dehydrogenase	11	13	0.543	0.789
P07195	L-lactate dehydrogenase B chain	13	15	0.905	0.694
Q01813	6-phosphofructokinase type C	3	6	0.887	1.106
P17858	6-phosphofructokinase, liver type	5	8	1.209	0.987
P08237	6-phosphofructokinase, muscle type	6	7	1.216	0.997
P00558	Phosphoglycerate kinase 1	22	27	0.678	0.865
P18669	Phosphoglycerate mutase	8	8	0.734	0.879
P30613	Pyruvate kinase isozymes R/L	19	20	0.928	0.760
P60174	Triosephosphate isomerase	13	13	0.741	0.871

