

**Quantitative Protein Expression Analysis
Of CLL B Cells from Mutated and Unmutated IgVH Subgroups
Using Acid-Cleavable Isotope-Coded Affinity Tag Reagents**

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List of Protein Identifications and ICAT ratios

Proteins Identified from the Membrane Fraction

SwissProt ID	Protein Name	L / H Ratio = M-CLL / UM-CLL
PPOL_HUMAN	Poly [ADP-ribose] polymerase-1 (PARP-1)	0.3
Z306_HUMAN	Zinc finger protein 306	0.4
M4K3_HUMAN	Mitogen-activated protein kinase	0.4
ECHM_HUMAN	Enoyl-CoA Hydratase, mitochondrial	0.4
RS5_HUMAN	40S ribosomal protein S5	0.4
CD5_HUMAN	CD5	0.4
HA2Q_HUMAN	HLA class II histocitability antigen, DP	0.5
PGF1_HUMAN	PDZ domain containing guanine nucleotide	0.5
2DRA_HUMAN	HLA class IL histocompatibility antigen, DR	0.5
CALX_HUMAN	Calnexin	0.6
RL7_HUMAN	60S ribosomal protein L7	0.6
LYN_HUMAN	Tyrosine-protein kinase LYN	0.7
UCRH_HUMAN	Ubiquinol-cytochrome C reductase complex 11kDa protein	0.7
NHPX_HUMAN	NHP2-like protein 1 (High mobility group-I	0.7
ICE3_HUMAN	Apopain precursor (Cysteine protease CPP32	0.7
CG51_HUMAN	Protein CGI-51	0.7
HA21_HUMAN	HLA class IL histocompatibility antigen, DQ	0.8
PML_HUMAN	Probable transcription factor PML (Triparti	0.8
POR2_HUMAN	Voltage-dependent anion-selective channel	0.8
ATPG_HUMAN	ATP synthase gamma chain, mitochondrial	0.9
MPU1_HUMAN	Mannose P-dolichol utilization defect 1 protein	0.9
CY1_HUMAN	Cytochrome c1, heme protein mitochondrial	0.9
ADT1_HUMAN	ATP carrier protein, heart/skeletal muscle	0.9
CCHL_HUMAN	Cytochrome c-type heme lyase (CCHL) (Holoc	0.9
TYPH_HUMAN	Thymidine phosphorylase (TdRPase)	1.0
TBA1_HUMAN	Tubulin	1.0

ATA3_HUMAN	Sarcoplasmic/endoplasmic reticulum calcium ATPase	1.0
IMB1_HUMAN	Importin beta-1 subunit	1.0
NR43_HUMAN	Nuclear hormone receptor NOR-1 (Neuron-der	1.0
2B11_HUMAN	HLA class II histocompatibility antigen, DRB-1-1	1.0
UCR1_HUMAN	Ubiquinol-cytochrome C reductase complex	1.1
TTCB_HUMAN	Tetratricopeptide repeat protein 11	1.1
GBB1_HUMAN	Guanine nucleotide-binding protein	1.1
KLK5_HUMAN	Kallikrein 5	1.1
PTPG_HUMAN	Protein-tyrosine phosphatase gamma precursor	1.1
ATPA_HUMAN	ATP synthase	1.1
GBB2_HUMAN	Guanine nucleotide-binding protein G(I)/G(S	1.1
CD45_HUMAN	CD 45 Leukocyte common antigen precursor (L-CA)	1.1
143Z_HUMAN	14-3-3 protein zeta/delta (Protein kinase C	1.1
GLG1_HUMAN	Golgi apparatus protein 1	1.2
IM9A_HUMAN	Mitochondrial import inner membrane transport	1.2
ATPO_HUMAN	ATP synthase oligomycin sensitivity conferral protein, mito	1.2
SMD3_HUMAN	Small nuclear ribonucleoprotein	1.2
RL23_HUMAN	60S ribosomal protein L23	1.2
B2MG_HUMAN	Beta-2 microglobulin	1.2
GPDM_HUMAN	Glycerol-3-phosphate dehydrogenase, mitochondrial	1.2
RYR3_HUMAN	Ryanodine receptor 3 (Brain-type ryanodin	1.3
OM70_HUMAN	Mitochondrial precursor proteins import receptor	1.3
IM9A_HUMAN	Mitochondrial import inner membrane trans	1.3
TXTP_HUMAN	Tricarboxylate transport protein, mitochondrial	1.3
GST3_HUMAN	Microsomal glutathione S-transferase 3 (Mi	1.3
G2D1_HUMAN	General transcription factor II-I repeat	1.4
TXN5_HUMAN	Thioredoxin domain containing protein 5 p	1.4
RUXE_HUMAN	Small nuclear ribonucleoprotein E	1.4
DL4A_HUMAN	Dynein light chain 4, axonemal	1.4
GAL2_HUMAN	N-acetylgalactosamine kinase	1.4
CD81_HUMAN	CD81	1.4
POR1_HUMAN	Voltage-dependent anion-selective channel	1.4
FBRL_HUMAN	Fibrillarin	1.4
LAM2_HUMAN	Lamin B2	1.4
LAM1_HUMAN	Lamin B1	1.4
HXK1_HUMAN	Hexokinase, type I (HK I)	1.4
GST3_HUMAN	Microsomal glutathione S-transferase 3	1.5

RPB2_HUMAN	DNA-directed RNA polymerase II 140 kDa poly	1.5
ACPM_HUMAN	Acyl carrier protein, mitochondrial	1.5
CD37_HUMAN	CD37	1.6
N133_HUMAN	Nuclear pore complex protein Nup133	1.6
T16B_HUMAN	Transmembrane protein 16B	1.6
ODP2_HUMAN	Dihydrolipoyllysine-residue acetyltransferase	1.7
ATB1_HUMAN	Plasma membrane calcium-transporting ATPase	1.7
A4GC_HUMAN	Alpha-1,4-N-acetylglucosaminyltransferase	1.7
CLE1_HUMAN	C-type lectin superfamily member 1	1.7
DHSA_HUMAN	Succinate dehydrogenase [ubiquinone] flavo	1.9
PLE1_HUMAN	Plectin 1	2.0
ERH_HUMAN	Enhancer of rudimentary homolog	2.2
MAT3_HUMAN	Matrin 3	2.4
RAC2_HUMAN	Ras-related C3 botulinum toxin substrate	2.5
CD48_HUMAN	CD48 B-lymphocyte activation marker BLAST-1	2.6
EP3B_HUMAN	Epididymal secretory protein E3 beta prec	2.6
NUMM_HUMAN	NADH-ubiquinone oxidoreductase 13 kDa-A su	2.8
P121_HUMAN	Nuclear envelope pore membrane protein	2.9
VIME_HUMAN	Vimentin	3.4
COXB_HUMAN	Cytochrome c oxidase polypeptide Vb	3.6
COXG_HUMAN	Cytochrome c oxidase polypeptide VIb	5.9

Proteins Identified from the Cytosol Fraction

SwissProt ID	Protein Name	L / H Ratio = M-CLL / UM-CLL
A32A_HUMAN	Acidic leucine-rich nuclear phosphoprotein	0.2
SFR1_HUMAN	Splicing factor, arginine/serine-rich 1	0.2
S108_HUMAN	Calgranulin A	0.3
ROA2_HUMAN	Heterogeneous nuclear ribonucleoproteins A2	0.3
GPX1_HUMAN	Glutathione peroxidase 1	0.4
PDL1_HUMAN	PDZ and LIM domain protein 1	0.4
ROA1_HUMAN	Heterogeneous nuclear ribonucleoprotein A1	0.4
A32E_HUMAN	Acidic leucine-rich nuclear phosphoprotein	0.5
AATM_HUMAN	Aspartate aminotransferase, mitochondrial	0.6
TERA_HUMAN	Transitional endoplasmic reticulum ATPase	0.6
ROD_HUMAN	Heterogeneous nuclear ribonucleoprotein	0.6

ROM_HUMAN	Heterogeneous nuclear ribonucleoprotein	0.7
ROH1_HUMAN	Heterogeneous nuclear ribonucleoprotein	0.7
AAC1_HUMAN	Alpha-actinin 1 (Alpha-actinin cytoskeletal	0.7
LAS1_HUMAN	LIM and SH3 domain protein 1	0.7
PCB1_HUMAN	Poly(rC)-binding protein 1 (Alpha-CP1)	0.7
I13A_HUMAN	Mitochondrial import inner membrane transport protein	0.7
MAT3_HUMAN	Matrin 3	0.7
BTB3_HUMAN	BTB/POZ domain containing protein 3	0.7
HCD2_HUMAN	3-hydroxyacyl-CoA dehydrogenase type II	0.8
FGR2_HUMAN	Fibroblast growth factor receptor 2 precursor	0.8
CH60_HUMAN	60 kDa heat shock protein, mitochondrial precursor	0.8
IMB1_HUMAN	Importin beta-1 subunit	0.8
MDHM_HUMAN	Malate dehydrogenase, mitochondrial precursor	0.8
EFTU_HUMAN	Elongation factor Tu, mitochondrial precursor	0.8
PDX1_HUMAN	Peroxiredoxin 1 (Thioredoxin peroxidase 2)	0.8
PLO1_HUMAN	Procollagen-lysine,2-oxoglutarate 5-dioxygenase	0.8
THIL_HUMAN	Acetyl-CoA acetyltransferase, mitochondrial	0.8
DLDH_HUMAN	Dihydrolipoyl dehydrogenase, mitochondrial	0.8
CRTC_HUMAN	Calreticulin precursor (CRP55) (Calregulin)	0.9
ARP3_HUMAN	Actin-like protein 3 (Actin-related protein	0.9
IM8A_HUMAN	Mitochondrial import inner membrane translocase subunit	0.9
ECHM_HUMAN	Enoyl-CoA hydratase, mitochondrial precursor	0.9
IDHA_HUMAN	Isocitrate dehydrogenase [NAD] subunit alpa	0.9
SNF5_HUMAN	Integrase interactor protein 1	0.9
TEBP_HUMAN	Telomerase-binding protein p23	0.9
N205_HUMAN	Nuclear pore complex protein Nup205	0.9
PEBP_HUMAN	Phosphatidylethanolamine-binding protein	0.9
RS21_HUMAN	40S ribosomal protein S21	0.9
CAPB_HUMAN	F-actin capping protein beta subunit	0.9
CLI5_HUMAN	Chloride intracellular channel protein 5	1.0
RAC1_HUMAN	Ras-related C3 botulinum toxin substrate 1	1.0
COF1_HUMAN	Cofilin, non-muscle isoform	1.0
DHE3_HUMAN	Glutamate dehydrogenase 1, mitochondrial precursor	1.0
ACTB_HUMAN	Actin, cytoplasmic 1 (Beta-actin)	1.0
TPIS_HUMAN	Triosephosphate isomerase (TIM)	1.0
CD42_HUMAN	Cell division control protein 42 homolog	1.0
CO1B_HUMAN	Coronin 1B (Coronin 2)	1.0

DHE4_HUMAN	Glutamate dehydrogenase 2, mitochondrial precursor	1.0
SM1A_HUMAN	Structural maintenance of chromosome 1	1.0
CAP1_HUMAN	Adenylyl cyclase-associated protein 1	1.0
DOPD_HUMAN	D-dopachrome tautomerase	1.0
GRB2_HUMAN	Growth factor receptor-bound protein 2	1.0
PP1G_HUMAN	Serine/threonine protein phosphatase PP1	1.0
PLSL_HUMAN	L-plastin (Lymphocyte cytosolic protein 1)	1.0
PPIA_HUMAN	Peptidyl-prolyl cis-trans isomerase A	1.0
ROF_HUMAN	Heterogeneous nuclear ribonucleoprotein F	1.0
GBI2_HUMAN	Guanine nucleotide-binding protein G(i)	1.1
LSM7_HUMAN	U6 snRNA-associated Sm-like protein LSM7	1.1
EF2_HUMAN	Elongation factor 2 (EF-2)	1.1
KPY2_HUMAN	Pyruvate kinase, M2 isozyme	1.1
TF65_HUMAN	Transcription factor p65	1.1
TXN1_HUMAN	Thioredoxin reductase, cytoplasmic precursor	1.1
CO1A_HUMAN	Coronin-like protein p57 (Coronin 1A)	1.1
PLSI_HUMAN	I-plastin	1.1
ACON_HUMAN	Aconitate hydratase, mitochondrial precursor	1.1
EP3A_HUMAN	Epididymal secretory protein E3 alpha precursor	1.1
SMD3_HUMAN	Small nuclear ribonucleoprotein Sm D3 (snR	1.1
Z406_HUMAN	Zinc finger protein 406	1.1
B2MG_HUMAN	Beta-2-microglobulin precursor	1.1
CFB5_HUMAN	Protein C6orf115	1.1
COAC_HUMAN	Coactosin-like protein	1.1
GDIB_HUMAN	Rab GDP dissociation inhibitor beta	1.1
SFPQ_HUMAN	Splicing factor, proline-and glutamine-rich	1.1
ROK_HUMAN	Heterogeneous nuclear ribonucleoprotein K	1.1
CLI1_HUMAN	Chloride intracellular channel protein 1	1.2
CNBP_HUMAN	Cellular nucleic acid binding protein	1.2
CBX1_HUMAN	Chromobox protein homolog 1 i	1.2
KDGZ_HUMAN	Diacylglycerol kinase, zeta	1.2
APE1_HUMAN	DNA-(apurinic or apyrimidinic site) lyase	1.3
CATA_HUMAN	Catalase	1.3
CD45_HUMAN	Leukocyte common antigen precursor	1.3
MYH9_HUMAN	Myosin heavy chain, nonmuscle type A	1.3
MLES_HUMAN	Myosin light chain alkali, smooth-muscle	1.3
LAM2_HUMAN	Lamin B2	1.3

RFA2_HUMAN	Replication protein A 32 kDa subunit	1.3
AR1B_HUMAN	ARP2/3 complex 41 kDa subunit	1.4
RAC2_HUMAN	Ras-related C3 botulinum toxin substrate 2	1.4
LAM1_HUMAN	Lamin B1	1.5
VIME_HUMAN	Vimentin	1.5
TXN5_HUMAN	Thioredoxin domain containing protein 5	2.6
1B46_HUMAN	HLA class I histocompatibility antigen, B-4	2.6
HBB_HUMAN	Hemoglobin beta chain	2.6
HBD_HUMAN	Hemoglobin delta chain	2.6