

Table S1. Mass spectroscopic identification of RhoGDI2 immunocomplex partners from Flag immunoprecipitation and elution

Protein	ACC	# expts	total peptides
P09493-4	P09493	2	11
Q8N274 Hypothetical protein FL	Q8N274	2	11
GDIS_HUMAN Rho GDP-dissociatio	P52566	2	9
TMO3_HUMAN Ubiquitous tropomod	Q9NYL9	2	6
ACTS_HUMAN Actin, alpha skelet	P02568	1	5
ADT2_HUMAN ADP,ATP carrier pro	P05141	2	5
ELM2_HUMAN Engulfment and cell	Q96JJ3	1	5
CALM_HUMAN Calmodulin	P02593	2	4
RHOA_HUMAN TRANSFORMING PROTEI	P06749	2	4
PDI2_HUMAN Protein-arginine de	Q9Y2J8	2	3
RIB2_HUMAN Dolichyl-diphosphoo	P04844	2	3
TRAL_HUMAN Heat shock protein	Q12931	2	3
AR21_HUMAN ARP2/3 complex 21 k	O15145	2	2
G3P2_HUMAN Glyceraldehyde 3-ph	P04406	1	2
HRA1_HUMAN Serine protease HTR	Q92743	2	2
huntingtin interacting protei	NP_036403	2	2
IF36_HUMAN Eukaryotic translat	Q64252	1	2
KIAA0377 gene product [Homo s	NP_055474	2	2
KIAA0418 gene product [Homo s	NP_055446	2	2
low density lipoprotein-relat	NP_061027	1	2
MTR2_HUMAN Myotubularin-relate	Q13614	2	2
Myc-binding protein-associate	NP_115509	2	2
P20849-2	P20849	2	2
PCNA_HUMAN Proliferating cell	P12004	2	2
Q00987-4	Q00987	2	2
Q9UQB3-2	Q9UQB3	1	2
RAB guanine nucleotide exchan	NP_055319	1	2
repressor of estrogen recepto	NP_009204	2	2
S111_HUMAN Calcizzarin (S100C	P31949	1	2
S3B3_HUMAN Splicing factor 3B	Q15393	2	2
SQRD_HUMAN Sulfide:quinone oxi	Q9Y6N5	2	2
SRC_HUMAN, [Schmidt-Ruppin A-2	P12931	2	2
SSB_HUMAN Single-stranded DNA-	Q04837	2	2
TBA4_HUMAN Tubulin alpha-4 cha	P05215	2	2
TPM2_HUMAN Tropomyosin beta ch	P07951	2	2
tubulin beta-5 [Homo sapiens]	NP_115914	2	2
ubiquitin protein ligase [Hom	NP_569733	2	2
VAV_HUMAN guanine nucleo	P15498	2	2

143B_HUMAN 14-3-3 protein beta	P31946	1	1
2-aminoadipic 6-semialdehyde	NP_861522	1	1
4F2_HUMAN 4F2 cell-surface ant	P08195	1	1
A4E1_HUMAN Adapter-related pro	Q9UPM8	1	1
AAAT_HUMAN Neutral amino acid	Q15758	1	1
ACTY_HUMAN Beta-contrastin (Ac	P42025	1	1
ADAM-TS related protein 1 iso	NP_644669	1	1
adenosine deaminase, tRNA-spe	NP_036223	1	1
adlican [Homo sapiens]	NP_056234	1	1
AF4_HUMAN AF-4 protein (Proto-	P51825	1	1
ANK3_HUMAN Ankyrin 3 (ANK-3) (Q12955	1	1
APB_HUMAN Apolipoprotein B-100	P04114	1	1
apoptosis regulator [Homo sap	NP_057645	1	1
apurinic/apurimidinic endonuc	NP_055296	1	1
ARF4_HUMAN ADP-ribosylation fa	P18085	1	1
ataxin 2; olivopontocerebella	NP_002964	1	1
ATPD_HUMAN ATP synthase delta	P30049	1	1
ATS9_HUMAN ADAMTS-9 precursor	Q9P2N4	1	1
AVR2_HUMAN Activin receptor ty	P27037	1	1
BASP_HUMAN Brain acid soluble	P80723	1	1
BTF3_HUMAN Transcription facto	P20290	1	1
C10ORF6 [Homo sapiens]	NP_060591	1	1
cancer/testis antigen gene 1	NP_786887	1	1
cask-interacting protein 2 [H	NP_065804	1	1
CAV1_HUMAN Caveolin-1	Q03135	1	1
CCG8_HUMAN Voltage-dependent c	Q8WXS5	1	1
CD59_HUMAN CD59 glycoprotein p	P13987	1	1
CDS2_HUMAN Phosphatidate cytid	O95674	1	1
chromosome 20 open reading fr	NP_054864	1	1
chromosome 9 open reading fra	NP_114401	1	1
CMC1_HUMAN Calcium-binding mit	O75746	1	1
CMC2_HUMAN Calcium-binding mit	Q9UJS0	1	1
CO1C_HUMAN Coronin 1C (Coronin	Q9ULV4	1	1
COA2_HUMAN Acetyl-CoA carboxyl	O00763	1	1
CPS1_HUMAN Cytochrome P450 XXI	P08686	1	1
CPT7_HUMAN Cytochrome P450 17A	P05093	1	1
CT4B_HUMAN Hypothetical protei	Q9UKD6	1	1
CTOG_HUMAN CH-TOG protein (Col	Q14008	1	1
cyclin B3 isoform 3 [Homo sap	NP_149020	1	1
DAPK_HUMAN Death-associated pr	P53355	1	1
DCT2_HUMAN Dynactin complex 50	Q13561	1	1
DD25_HUMAN ATP-dependent RNA h	Q9UHL0	1	1
DEAH (Asp-Glu-Ala-His) box po	NP_064547	1	1

dendritic cell protein [Homo	NP_006351	1	1
disrupted in renal carcinoma	NP_443184	1	1
DKFZP434B168 protein [Homo sa	NP_056249	1	1
DKFZp586F1019 protein [Homo s	NP_056423	1	1
DNA polymerase delta p38 subu	NP_056399	1	1
DNA-crosslink repair gene SNM	NP_055696	1	1
DNL1_HUMAN DNA ligase I (Polyd	P18858	1	1
DOC6_HUMAN Deducator of cytoki	Q96HP0	1	1
DSPP_HUMAN Dentin sialophospho	Q9NZW4	1	1
EF1G_HUMAN Elongation factor 1	P26641	1	1
EL1_HUMAN Elastase 1 precursor	Q9UNI1	1	1
ELL2_HUMAN RNA polymerase II e	O00472	1	1
EML1_HUMAN Echinoderm microtub	O00423	1	1
EP42_HUMAN Erythrocyte membran	P16452	1	1
esophageal cancer associated	NP_064710	1	1
ET1R_HUMAN Endothelin-1 recept	P25101	1	1
far upstream element-binding	NP_003893	1	1
FAS_HUMAN Fatty acid synthase	P49327	1	1
FAT2_HUMAN Protocadherin Fat 2	Q9NYQ8	1	1
FATH_HUMAN Cadherin-related tu	Q14517	1	1
FGFI_HUMAN Fibroblast growth f	O76093	1	1
filaggrin [Homo sapiens]	XP_048104	1	1
FSL1_HUMAN Follistatin-related	Q12841	1	1
gamma-glutamyltransferase-lik	NP_563577	1	1
GAS1_HUMAN Growth-arrest-speci	P54826	1	1
GBB2_HUMAN Guanine nucleotide-	P11016	1	1
GBX2_HUMAN Homeobox protein GB	P52951	1	1
gemin 6 [Homo sapiens]	NP_079051	1	1
GS1_HUMAN GS1 protein	Q08623	1	1
H-2K binding factor-2 [Homo s	NP_056958	1	1
HIV-1 Rev binding protein-lik	NP_006067	1	1
HXB3_HUMAN Homeobox protein Ho	P14651	1	1
IBA4_HUMAN ITBA4 protein	O15226	1	1
IF39_HUMAN Eukaryotic translat	P55884	1	1
IF3A_HUMAN Eukaryotic translat	Q14152	1	1
IF4N_HUMAN Eukaryotic initiati	P38919	1	1
IMMT_HUMAN Mitochondrial inner	Q16891	1	1
importin 4 [Homo sapiens]	NP_078934	1	1
ISL2_HUMAN Insulin gene enhanc	Q96A47	1	1
JAW1-related protein isoform	NP_006060	1	1
Kaiso [Homo sapiens]	NP_006768	1	1
KF3B_HUMAN Kinesin-like protei	O15066	1	1
KHLX_HUMAN Kelch-like protein	Q9Y2M5	1	1

KIAA0170 gene product; nuclea	NP_055456	1	1
KIAA0354 gene product [Homo s	NP_055687	1	1
KIAA0590 gene product [Homo s	NP_055529	1	1
KIAA0625 protein [Homo sapien	NP_055861	1	1
KIAA0753 gene product [Homo s	NP_055619	1	1
KIAA0844 protein [Homo sapien	NP_055766	1	1
KIAA0903 protein [Homo sapien	NP_056067	1	1
LAP (leucine-rich repeats and	NP_079444	1	1
LDHB_HUMAN L-lactate dehydroge	P07195	1	1
LDHL_HUMAN L-lactate dehydroge	Q9BYZ2	1	1
leucine zipper, putative tumo	NP_066300	1	1
likely ortholog of mouse ubiq	NP_071349	1	1
LMB1_HUMAN Laminin beta-1 chai	P07942	1	1
LOL1_HUMAN Lysyl oxidase homol	Q08397	1	1
ME18_HUMAN DNA-binding protein	P35227	1	1
METK_HUMAN S-adenosylmethionin	P31153	1	1
MGL2_HUMAN MAGE-like protein 2	Q9UJ55	1	1
mitochondrial ribosomal prote	NP_071383	1	1
mitochondrial ribosomal prote	NP_078816	1	1
MN1_HUMAN Probable tumor suppr	Q10571	1	1
monogenic, audiogenic seizure	NP_115495	1	1
MRP_HUMAN MARCKS-related prote	P49006	1	1
myopalladin [Homo sapiens]	NP_115967	1	1
MYST histone acetyltransferas	NP_008998	1	1
NAB1_HUMAN NGFI-A binding prot	Q13506	1	1
NC5R_HUMAN NADH-cytochrome b5	P00387	1	1
nemo-like kinase; likely orth	NP_057315	1	1
NHPX_HUMAN NHP2-like protein 1	P55769	1	1
ninein (GSK3B interacting pro	NP_065972	1	1
NISM_HUMAN NADH-ubiquinone oxi	O43674	1	1
NO56_HUMAN Nucleolar protein N	O00567	1	1
NPL4_HUMAN Nucleosome assembly	Q99733	1	1
NUCG_HUMAN Endonuclease G, mit	Q14249	1	1
O00327-2	O00327	1	1
O15164-2	O15164	1	1
O60536 Antigen NY-CO-43.	O60536	1	1
O76074-2	O76074	1	1
ODCI_HUMAN Ornithine decarboxy	O14977	1	1
OPN3_HUMAN Opsin 3 (Encephalop	Q9H1Y3	1	1
P11277-3	P11277	1	1
P2Y6_HUMAN P2Y purinoceptor 6	Q15077	1	1
P35813-2	P35813	1	1
P36542-2	P36542	1	1

P53814-2	P53814	1	1
PA24_HUMAN Cytosolic phospholi	P47712	1	1
PCB2_HUMAN Poly(rC)-binding pr	Q15366	1	1
PDA4_HUMAN Protein disulfide i	P13667	1	1
PDZ and LIM domain 2; mystiqu	NP_067643	1	1
PEND_HUMAN Pendrin (Sodium-ind	O43511	1	1
peroxisomal biogenesis factor	NP_542393	1	1
phosphoinositol 4-phosphate a	NP_116028	1	1
PIGL_HUMAN N-acetylglucosaminy	Q9Y2B2	1	1
POR1_HUMAN Voltage-dependent a	P21796	1	1
PPP6_HUMAN Serine/threonine pr	O00743	1	1
protein containing CXXC domai	NP_115979	1	1
protocadherin gamma subfamily	NP_115268	1	1
Prp5-like DEAD-box protein; R	NP_055644	1	1
PSA4_HUMAN Proteasome subunit	P25789	1	1
PSDB_HUMAN 26S proteasome non-	O00231	1	1
PYC_HUMAN Pyruvate carboxylase	P11498	1	1
pyrroline 5-carboxylate reduc	NP_037460	1	1
Q08379-2	Q08379	1	1
Q13243-2	Q13243	1	1
Q13945 3',5'-cyclic AMP phosph	Q13945	1	1
Q14028-2	Q14028	1	1
Q14297 Fetal beta-MHC binding	Q14297	1	1
Q15173-2	Q15173	1	1
Q15257-4	Q15257	1	1
Q15276 Rabaptin-5.	Q15276	1	1
Q15303-2	Q15303	1	1
Q15646-2	Q15646	1	1
Q86TT5 Human full-length cDNA	Q86TT5	1	1
Q86XI8 Hypothetical protein.	Q86XI8	1	1
Q8IU56 Histamine N-methyltrans	Q8IU56	1	1
Q8IUZ3 Hypothetical protein.	Q8IUZ3	1	1
Q8IVH8-3	Q8IVH8	1	1
Q8IWG8 Similar to RIKEN cDNA 2	Q8IWG8	1	1
Q8N3D7 Hypothetical protein.	Q8N3D7	1	1
Q8N432 Similar to RIKEN cDNA 2	Q8N432	1	1
Q8N8W9 Hypothetical protein FL	Q8N8W9	1	1
Q8NAS8 Hypothetical protein FL	Q8NAS8	1	1
Q8NH34 Seven transmembrane hel	Q8NH34	1	1
Q8NHD2 SREC-5.	Q8NHD2	1	1
Q8NHU2-4	Q8NHU2	1	1
Q8TAM2-2	Q8TAM2	1	1
Q8TEH2 FLJ00225 protein (Fragm	Q8TEH2	1	1

Q8TEL7 FLJ00176 protein (Fragm	Q8TEL7	1	1
Q8WWQ5 Mucin 5 (Fragment).	Q8WWQ5	1	1
Q96CH5 Hypothetical protein (F	Q96CH5	1	1
Q96D19 DKFZP434A043 protein.	Q96D19	1	1
Q96RF1 HEJ1.	Q96RF1	1	1
Q99463 Y6 encoding protein.	Q99463	1	1
Q99996-4	Q99996	1	1
Q9BT24 Hypothetical protein.	Q9BT24	1	1
Q9H3B6 PRO1292.	Q9H3B6	1	1
Q9H3C4 PRO0753.	Q9H3C4	1	1
Q9H5Z4 Hypothetical protein FL	Q9H5Z4	1	1
Q9H8E8-2	Q9H8E8	1	1
Q9NPT4 Hypothetical protein.	Q9NPT4	1	1
Q9P281 Hypothetical protein KI	Q9P281	1	1
Q9UGU0-2	Q9UGU0	1	1
Q9ULM3 Hypothetical protein KI	Q9ULM3	1	1
Q9UM12 CaC-1 protein (Fragment	Q9UM12	1	1
Q9UPX8-2	Q9UPX8	1	1
RAB guanine nucleotide exchan	NP_055319	1	1
rabconnectin-3 [Homo sapiens]	NP_056078	1	1
RAC1_HUMAN Ras-related C3 botu	P15154	1	1
RAN_HUMAN GTP-binding nuclear	P17080	1	1
rap2 interacting protein x [H	NP_055776	1	1
RB10_HUMAN Ras-related protein	O88386	1	1
RB2A_HUMAN Ras-related protein	P08886	1	1
RB-associated KRAB repressor	NP_066986	1	1
RBB4_HUMAN Chromatin assembly	Q09028	1	1
RM49_HUMAN Mitochondrial 60s r	Q13405	1	1
RP1_HUMAN Oxygen-regulated pro	P56715	1	1
RP38_HUMAN Ribonuclease P prot	P78345	1	1
RPA1_HUMAN DNA-directed RNA po	O95602	1	1
RS15_HUMAN 40S ribosomal prote	P11174	1	1
RSP4_HUMAN 40S ribosomal prote	P08865	1	1
RT30_HUMAN Mitochondrial 28S r	Q9NP92	1	1
RT31_HUMAN 28S ribosomal prote	Q92665	1	1
RUXE_HUMAN Small nuclear ribon	P08578	1	1
S10P_HUMAN S-100P protein	P25815	1	1
S143_HUMAN SEC14-like protein	Q9UDX4	1	1
S3A3_HUMAN Splicing factor 3A	Q12874	1	1
sema domain, immunoglobulin d	NP_060259	1	1
sequestosome 1; ubiquitin-bin	NP_003891	1	1
SERA_HUMAN D-3-phosphoglycerat	O43175	1	1
SH2 domain containing phospho	NP_110391	1	1

SIAS_HUMAN Sialic acid synthas	Q9NR45	1	1
single Ig IL-1R-related molec	NP_068577	1	1
SMD1_HUMAN Small nuclear ribon	P13641	1	1
SNG4_HUMAN Synaptogyrin 4	O95473	1	1
SPA1_HUMAN Signal-induced prol	Q96FS4	1	1
SPB7_HUMAN Megsin (TP55) (Serp	O75635	1	1
SPCA_HUMAN Spectrin alpha chai	P02549	1	1
SPOP_HUMAN Speckle-type POZ pr	O43791	1	1
SR54_HUMAN Signal recognition	P13624	1	1
SRp25 nuclear protein; HSVI b	NP_057722	1	1
SSRD_HUMAN Translocon-associat	P51571	1	1
STE20-like kinase; STE2-like	NP_057365	1	1
steroid-sensitive protein 1 [NP_840058	1	1
STKA_HUMAN Serine/threonine pr	O94804	1	1
suppressor of var1, 3-like 1	NP_003162	1	1
SYD_HUMAN Aspartyl-tRNA synthe	P14868	1	1
SYK_HUMAN Lysyl-tRNA synthetas	Q15046	1	1
synovial sarcoma, X breakpoin	NP_003138	1	1
synovial sarcoma, X breakpoin	NP_054740	1	1
SZ07_HUMAN Platelet basic prot	P02775	1	1
T150_HUMAN Thyroid hormone rec	Q9Y2W1	1	1
T2D6_HUMAN Transcription initi	Q15545	1	1
T2D7_HUMAN Transcription initi	Q16594	1	1
TCPD_HUMAN T-complex protein 1	P50991	1	1
tectorin alpha precursor; Tec	NP_005413	1	1
testis expressed sequence 11	NP_112566	1	1
TGM1_HUMAN Protein-glutamine g	P22735	1	1
THIM_HUMAN 3-ketoacyl-CoA thio	P42765	1	1
TIAM_HUMAN T-lymphoma invasion	Q13009	1	1
transport-secretion protein 2	NP_065109	1	1
TRPS_HUMAN Zinc finger transcr	Q9UHF7	1	1
TSP3_HUMAN Thrombospondin 3 pr	P49746	1	1
UBCM_HUMAN Ubiquitin-conjugati	O76069	1	1
UBP5_HUMAN Ubiquitin carboxyl-	P45974	1	1
UCR2_HUMAN Ubiquinol-cytochrom	P22695	1	1
UCR6_HUMAN Ubiquinol-cytochrom	P14927	1	1
UPF3 regulator of nonsense tr	NP_075386	1	1
usherin [Homo sapiens]	NP_009054	1	1
VAB2_HUMAN Vacuolar ATP syntha	P21281	1	1
WNT1 inducible signaling path	NP_543028	1	1
Wolf-Hirschhorn syndrome cand	NP_015627	1	1
Y419_HUMAN Hypothetical protei	O43303	1	1
YN01_HUMAN Hypothetical protei	P59074	1	1

Z151_HUMAN Zinc finger protein	Q13105	1	1
ZDH7_HUMAN Zinc finger DHHC do	Q9NXF8	1	1