Supplemental Table 2

ENDOSOME, LYSOSOME, PHAGOSOME DATA (From Figure 7)

Most significant BLAST result protein tyrosine kinase receptor-type tyrosine-protein phosphatase f isoform 2 precursor		
	Contig ID	Reinf/Apo
receptor-type tyrosine-protein phosphatase f isoform 2 precursor	51123	32.9
	63341	10.1
a chain crystal structure of insulin-like growth factor 1 receptor (igf-1r-wt)	66172	10.1
copper-transporting atpase 1	202378	6.3
solute carrier family 15 member 3	71004	5.1
beta-glucuronidase-like	65668	5.1
phosphatidylinositol 3-kinase catalytic subunit type 3	53024	4.3
sialin-like	156883	4.0
BAI1-associated protein 3-like	64657	3.9
vesicle-associated membrane synaptobrevin 7b	63664	3.7
ankyrin repeat domain-containing protein 27	52683	3.4
grip1-associated protein 1	262908	3.3
proteasome-associated protein ecm29 homolog	62987	3.2
protein tyrosine receptor f	57138	3.2
glucosylceramidase	200990	3.1
two pore calcium channel protein 1A	64058	3.0
wd repeat-containing protein 48	161276	2.8
bromodomain and wd repeat-containing protein 3	53544	2.8
phospholipase b-like 2-like	63504	2.6
lysosomal alpha-mannosidase	261092	2.6
ephrin type-a receptor 4-like	51948	2.6
tnf receptor-associated factor 3-like	201416	2.4
cathepsin b	202630	2.4
efflux abc transporter permease atp-binding protein	63735	2.3
h(+) cl(-) exchange transporter 3 isoform b	198883	2.3
tnf receptor-associated factor 2/3-like A	260971	2.3
e3 ubiquitin-protein ligase mib2-like A	156452	2.2
n-acylethanolamine-hydrolyzing acid amidase-like	198571	2.2
run and fyve domain containing 2	63441	2.2
ras-related protein rab-22a	201547	2.2
sushi, von Willebrand factor type A, EGF, and pentraxin domain-containing protein 1-like	209184	2.1
charged multivesicular body protein 1b	62056	2.1
t-complex protein 1 subunit alpha-like	198605	2.1
tnf receptor-associated factor 2/3-like B	260911	2.1
rab family GTPase	61946	2.1
mit domain-containing protein 1	202199	2.1
cap-gly domain-containing linker protein 1	202199	2.1
e3 ubiquitin-protein ligase mib2-like B	62707	2.0
heparan-alpha-glucosaminide n-acetyltransferase-like	199277	16.6
ubiquitin isoform cra_a	54372	9.2
deleted in malignant brain tumors 1 protein-like E	156484	8.6
phosphotidylinositol phosphatase pt prq-like	261661	8.5
chloride transport protein 6B	266437	6.7
chiloride transport protein ob		6.7
chloride transport protein 6A	263101	4.8
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1	263101 156836	4.8 4.7
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich	263101 156836 264124	4.8 4.7 4.7
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16	263101 156836 264124 199661	4.8 4.7 4.7 4.6
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4	263101 156836 264124 199661 54904	4.8 4.7 4.7 4.6 4.0
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase	263101 156836 264124 199661 54904 199159	4.8 4.7 4.7 4.6 4.0 3.9
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C	263101 156836 264124 199661 54904 199159 161416	4.8 4.7 4.7 4.6 4.0 3.9 3.8
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase	263101 156836 264124 199661 54904 199159 161416 264623	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C	263101 156836 264124 199661 54904 199159 161416	4.8 4.7 4.7 4.6 4.0 3.9 3.8
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase	263101 156836 264124 199661 54904 199159 161416 264623	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate S-kinase serine/threonine-protein kinase mTOR-like	263101 156836 264124 199661 54904 199159 161416 264623 64141	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.6 3.5
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.6 3.5 3.5 3.5
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like	263101 155836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192	4.8 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.6 3.5 3.5 3.5
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743	4.8 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.6 3.5 3.5 3.4 3.4 3.3
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositoi-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase kiase kinase kinase scrine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase kinase kinase kinase scril-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase kinase kinase kinase 4 isoform 4 scyl-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2	263101 155836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743 203188	4.8 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.5 3.3 3.3
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743 203188 53120	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.3 3.3 3.3
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein 8 poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase miD2-like C receptor-type tyrosine-protein phosphatase s	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743 203188 53120 204010	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.4 3.3 3.3 3.1 3.1
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase ki siose 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743 203188 53120 204010 68188	4.8 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.3 3.3 3.1 3.1 3.1 3.0
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c probable serine threonine-protein kinase	263101 156836 264124 199661 54904 19959 161416 264623 64141 62699 51365 51565 72192 66743 203188 53120 204010 68188 66020	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.6 3.5 3.5 3.4 3.3 3.3 3.1 3.1 3.1 3.0 3.0
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c probable serine threonine-protein kinase ATP-binding casette sub-family b member 9	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743 203188 53120 204010 68188 66020 201838	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.4 3.3 3.3 3.1 3.1 3.1 3.0 3.0
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kiase kiase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c2 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c probable serine threonine-protein kinase ATP-binding cassette sub-family b member 9 niemann-pick c1 protein A	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743 203188 53120 204010 68188 66020 2032 2032 2032 2032 2032 2032 203	4.8 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.3 3.3 3.1 3.1 3.0 2.9
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c probable serine threonine-protein kinase ATP-binding cassette sub-family b member 9 niemann-pick c1 protein A nischarin	263101 156836 264124 199661 54904 19959 161416 264623 64141 62699 51365 52192 66743 203188 53120 204010 68188 66020 201838 263205 51310	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.3 3.3 3.1 3.1 3.1 3.0 3.0 2.9 2.8 2.7
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kiase kiase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c2 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c probable serine threonine-protein kinase ATP-binding cassette sub-family b member 9 niemann-pick c1 protein A	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743 203188 53120 204010 68188 66020 2032 2032 2032 2032 2032 2032 203	4.8 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.3 3.3 3.1 3.1 3.0 2.9
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c probable serine threonine-protein kinase ATP-binding suck c1 protein A nischarin dedicator of cytokinesis protein 2-like deleted in malignant brain tumors 1 protein-like C	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 52192 66743 203188 53120 204010 68188 66020 201838 66020 201838 53120 204010 65139 265139	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.3 3.3 3.1 3.1 3.1 3.0 3.0 2.9 2.8 2.7
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c probable serine threonine-protein kinase ATP-binding cassette sub-family b member 9 niemann-pick c1 protein A nischarin dedicator of cytokinesis protein 2-like	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 75262 62647 62495 52192 66743 203188 53120 204010 68188 66028 60103 201038 51310 65139	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.4 3.3 3.3 3.1 3.1 3.1 3.0 2.9 2.8 2.7 2.6
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase 4 isoform 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquiti c probable serine threonine-protein kinase ATP-binding cassette sub-family b member 9 niemann-pick c1 protein A nischarin dedicator of cytokinesis protein 2-like deleted in malignant brain tumors 1 protein-like C	263101 156836 264124 199661 54904 19959 161416 264623 64141 62699 51365 52192 66743 203188 53120 204010 68188 66020 201838 263205 51310 65139 201276 213082	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.3 3.3 3.1 3.1 3.1 3.0 2.9 2.8 2.7 2.6 2.6
chloride transport protein 6A prolow-density lipoprotein receptor-related protein 1 run domain beclin-1 interacting and cystein-rich zinc finger fyve domain-containing protein 16 solute carrier family 15 member 4 receptor-type tyrosine-protein phosphatase niemann-pick c1 protein C 1-phosphatidylinositol-3-phosphate 5-kinase serine/threonine-protein kinase mTOR-like polyphosphoinositide phosphatase mitogen-activated protein kinase kinase kinase ki sios form 4 scy1-like protein 2 deleted in malignant brain tumors 1 protein-like D niemann-pick c1 protein B poly(adp-ribose) glycohydrolase-like sid1 transmembrane family member 1 ATP-binding sub-family a member 2 e3 ubiquitin-protein ligase mib2-like C receptor-type tyrosine-protein phosphatase s ubiquitin c probable serine threonine-protein kinase ATP-binding cassette sub-family b member 9 niemann-pick c1 protein A nischarin dedicator of cytokinesis protein 2-like deleted in malignant brain tumors 1 protein-like C two pore calcium channel protein 1 B lipopolysaccharide-responsive and beige-like anchor protein	263101 156836 264124 199661 54904 199159 161416 264623 64141 62699 51365 156907 262647 62495 52192 66743 203188 53120 204010 68188 66020 204010 68183 20325 51319 201276 213082	4.8 4.7 4.7 4.6 4.0 3.9 3.8 3.7 3.6 3.5 3.5 3.4 3.3 3.3 3.1 3.1 3.0 2.9 2.8 2.7 2.6 2.6
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CELL DIVISION DATA (From Figure 8A)

Most significant BLAST result	Contig ID	Reinf/Apo
bcl-2 homology protein	166238	17.9
Serine/threonine-protein kinase LMTK1	66172	10.1
mitogen-activated protein kinase kinase kinase 3-like	156942	5.9
cell division cycle protein 23 homolog	261073	5.7
centromere protein j	263874	5.7
phosphatidylinositol 3-kinase catalytic subunit type 3-like	53024	4.3
syntaxin-1A-like	64986	3.8
dna ligase 1-like	158921	3.8
synaptobrevin-like	63664	3.7
anaphase-promoting complex subunit 2-like	201262	3.5
structural maintenance of chromosomes protein 5-like	62641	3.2
endoribonuclease dicer-like	203025	3.2
protein aatf-like	262855	3.0
CDK-activating kinase assembly factor MAT1-like	62887	3.0
serine threonine-protein kinase nek4	198815	3.0
citron rho-interacting kinase-like	201696	2.8
structural maintenance of chromosomes protein 4-like	51790	2.8
regulator of chromosome condensation-like	50946	2.5
Serine/threonine-protein kinase Chk2-like	157318	2.3
nuclear migration protein nudc-like	210877	2.3
mini-chromosome maintenance complex-binding protein	64008	2.3
structural maintenance of chromosomes protein 2-like	200814	2.2
wee1-like protein kinase-like	264255	2.2
GTP-binding protein	161278	2.1
cyclin-dependent kinase 11-like	260921	2.1
condensin-2 complex subunit d3-like	50977	10.8
SAM domain-containing protein	52335	6.2
SH3 domain-containing protein	53175	6.2
transforming growth factor beta-2 isoform 1	63568	5.1
serine/threonine-protein kinase nek8	156456	4.2
cell division protein FtsH	53814	4.2
mau2 chromatid cohesion factor homolog	52895	3.7
cell division cycle protein 20 homolog	62534	3.7
abnormal spindle-like microcephaly-associated protein homolog	51974	3.5
condensin complex subunit 3	63122	3.2
zinc finger fyve domain-containing protein 26	52835	3.1
ras subfamily protein	261504	2.4
achain structure of the mutant fibroblast growth factor receptor 1	50994	2.3
breast cancer anti-estrogen resistance protein 1	202107	2.1
protein elys-like	261324	2.1

RESPONSE TO STRESS DATA (From Figure 8B)

Most significant BLAST result	Contig ID	Reinf/Apo
hypoxia up-regulated protein 1-like	263453	3.9
transposase domain-containing protein-like	52348	3.8
translation initiation factor eif-2b subunit epsilon-like	59955	3.6
mitochondrial import receptor subunit tom70	201868	2.6
dual specificity protein kinase shkc-like	261231	2.5
metalloendopeptidase oma1, mitochondrial-like	214499	2.1
heat shock 70 kDa protein 12a-like	63971	10.0
s-adenosyl-l-homocysteine hydrolase	53504	7.7
misshapen-like kinase 1-like	51365	3.5
mitogen-activated protein kinase kinase kinase 4-llike	51885	2.6
heat shock protein ibpa	71615	2.4
serine threonine-protein kinase smg1	51829	2.3
eukaryotic translation initiation factor 3 subunit I-like	270473	2.3
mitogen-activated protein kinase kinase kinase mlt-like	52945	2.1