Product Datasheet

DNM1L Antibody

Catalog No: #32735

Package Size: #32735-1 50ul #32735-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

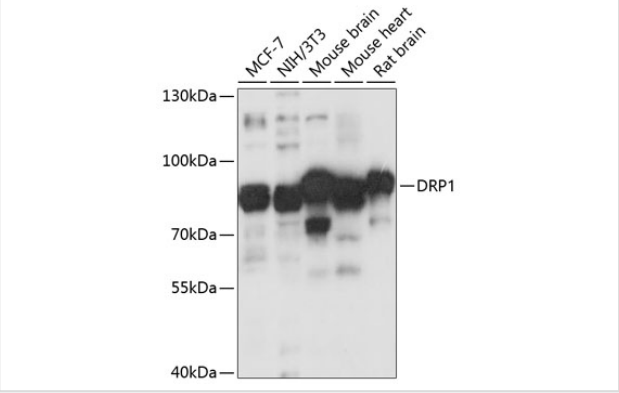
Description

Product Name	DNM1L Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB,IF
Species Reactivity	Human,Mouse,Rat
Specificity	The antibody detects endogenous level of total DNM1L protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human DNM1L.
Target Name	DNM1L
Other Names	DNM1L; DLP1; DRP1; DVLP; DYMPLE
Accession No.	Swiss-Prot:O00429NCBI Gene ID:10059
Uniprot	O00429
GeneID	10059;
SDS-PAGE MW	79KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

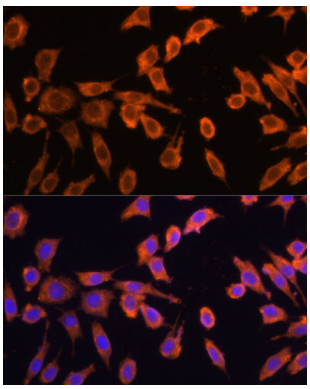
Application Details

WB□1:500 - 1:2000IF□1:50 - 1:200

Images



Western blot analysis of extracts of various cell lines, using DRP1 at 1:3000 dilution.



Immunofluorescence analysis of L929 cells using DRP1 Polyclonal at dilution of 1:100 (40x lens). Blue: DAPI for nuclear staining.

Background

Dynamin-related protein 1 (DNM1L) is a member of the dynamin superfamily of GTPases. Members of this family have diverse cellular functions including vesicle scission, organelle fission, viral resistance, and intracellular trafficking (reviewed in 1). DNM1L affects mitochondrial morphology and is important in mitochondrial and peroxisomal fission in mammalian cells (2-5). The yeast ortholog of DNM1L clusters into a spiral-shaped structure on the mitochondrial membrane at the site of fission (reviewed in 6), and this structure is likely conserved in mammalian cells (3). The division of the mitochondria, which is required for apoptosis, as well as normal cell growth and development is controlled, in part, by the phosphorylation of DNM1L at Ser616 by Cdk1/cyclin B and at Ser637 by protein kinase A (PKA) (reviewed in 6). When phosphorylated at Ser616, DNM1L stimulates mitochondrial fission during mitosis. Conversely, fission is inhibited when DNM1L is phosphorylated at Ser637 (reviewed in 6). Dephosphorylation at Ser637 by calcineurin reverses this inhibition (7). In addition to phosphorylation, sumoylation of DNM1L is also an enhancer of mitochondrial fission (8). Balancing fission and fusion events is essential for proper mitochondrial function. Research studies have demonstrated mitochondrial defects in a variety of neurodegenerative diseases including AlzheimerB‘B—s disease, ParkinsonB‘B—s disease, and HuntingtonB‘B—s disease (reviewed in 6).

Note: This product is for in vitro research use only