

## PRODUCT DATA SHEET

Bioworld Technology,Inc.

# **DNM1L** mouse monoclonal antibody

Catalog: MB4009 Host: Mouse Reactivity: Human, Dog, Rat, Monkey, Mouse

## **BackGround:**

Dynamin-related protein 1 (DRP1) 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. DRP1 affects mitochondrial morphology and is important in mitochondrial and peroxisomal fission in mammalian cells. The yeast ortholog of DRP1 clusters into a spiral-shaped structure on the mitochondrial membrane at the site of fission, and this structure is likely conserved in mammalian cells. 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 DRP1 at Ser616 by Cdk1/cyclin B and at Ser637 by protein kinase A (PKA). When phosphorylated at Ser616, DRP1 stimulates mitochondrial fission during mitosis. Conversely, fission is inhibited when DRP1 is phosphorylated at Ser637. Dephosphorylation at Ser637 by calcineurin reverses this inhibition. In addition to phosphorylation, sumoylation of DRP1 is also an enhancer of mitochondrial fission. Balancing fission and fusion events is essential for proper mitochondrial function. Research studies have demonstrated mitochondrial defects in a variety of neurodegenerative diseases including Alzheimer's disease, Parkinson's disease, and Huntington's disease.

## **Product:**

1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

## **Molecular Weight:**

~ 81 kDa

# **Swiss-Prot:**

O00429

# **Purification&Purity:**

The antibody was affinity-purified from mouse ascites fluids or tissue culture supernatant by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

#### **Applications:**

WB 1:200~4000, IHC 1:150

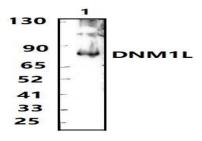
#### **Storage**&Stability:

Store at  $4\,\mathrm{C}$  short term. Aliquot and store at  $-20\,\mathrm{C}$  long term. Avoid freeze-thaw cycles.

## **Isotype:**

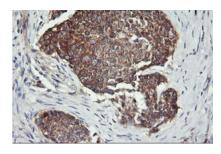
IgG2b

#### **DATA:**



Western blot (WB) analysis of DNM1L mouse monoclonal antibody at 1:500 dilution.

Lane1:HepG2 whole cell lysate(30ug)



Immunohistochemical staining of paraffin-embedded Carcinoma of Human lung tissue using anti-DNM1L mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 120 ℃ for 3min)

#### Note:

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For research use only, not for use in diagnostic procedure.

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