Best Tools for immunology Research

DRP1 Polyclonal Antibody

Catalog No :	YT1414
Reactivity :	Human;Mouse;Rat
Applications :	IF;WB;IHC;ELISA
Target :	DRP1
Fields :	>>Necroptosis;>>NOD-like receptor signaling pathway;>>TNF signaling pathway
Gene Name :	DNM1L
Protein Name :	Dynamin-1-like protein
Human Gene Id :	10059
Human Swiss Prot No :	O00429
Mouse Gene Id :	74006
Mouse Swiss Prot No :	Q8K1M6
Rat Gene Id :	114114
Rat Swiss Prot No :	O35303
Immunogen :	Synthesized peptide derived from DRP1 . at AA range: 580-660
Specificity :	DRP1 Polyclonal Antibody detects endogenous levels of DRP1 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	IF 1:50-200 WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000. Not yet tested in other applications.

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 80kD

Cell Pathway : Endocytosis;Fc gamma R-mediated phagocytosis;

Background : This gene encodes a member of the dynamin superfamily of GTPases. The encoded protein mediates mitochondrial and peroxisomal division, and is involved in developmentally regulated apoptosis and programmed necrosis. Dysfunction of this gene is implicated in several neurological disorders, including Alzheimer's disease. Mutations in this gene are associated with the autosomal dominant disorder, encephalopathy, lethal, due to defective mitochondrial and peroxisomal fission (EMPF). Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jun 2013],

Function : catalytic activity:GTP + H(2)O = GDP + phosphate.,function:Functions in mitochondrial and peroxisomal division probably by regulating membrane fission. Enzyme hydrolyzing GTP that oligomerizes to form ring-like structures and is able to remodel membranes. May also play a role on organelles of the secretory pathway.,miscellaneous:Isoform 1 and isoform 2 inhibits peroxisomal division when overexpressed while isoform 3 and isoform 4 have no effect.,PTM:Phosphorylated by GSK3B.,similarity:Belongs to the dynamin family.,similarity:Contains 1 GED domain.,subcellular location:Mainly cytosolic. Also membrane-associated. Localizes to mitochondria at spots of division events. Associated with peroxisomal membranes, it is recruited in part by PEX11B. May also be associated with endoplasmic reticulum tubules and cytoplasmic vesicles and found to be perinuclear.,subunit:Homotetramer; N-terminal part b

Subcellular Location : Cytoplasm, cytosol. Golgi apparatus. Endomembrane system; Peripheral membrane protein. Mitochondrion outer membrane ; Peripheral membrane protein. Peroxisome. Membrane, clathrin-coated pit . Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane . Mainly cytosolic. Recruited by RALA and RALBP1 to mitochondrion during mitosis (PubMed:21822277). Translocated to the mitochondrial membrane through O-GlcNAcylation and interaction with FIS1. Colocalized with MARCHF5 at mitochondrial membrane. Localizes to mitochondria at sites of division. Localizes to mitochondria following necrosis induction. Recruited to the mitochondrial outer membrane by interaction with MIEF1. Mitochondrial recruitment is inhibited by C11orf65/MFI (By similarity). Associated with peroxisomal membranes, partly re

Expression : Ubiquitously expressed with highest levels found in skeletal muscles, heart,

kidney and brain. Isoform 1 is brain-specific. Isoform 2 and isoform 3 are predominantly expressed in testis and skeletal muscles respectively. Isoform 4 is weakly expressed in brain, heart and kidney. Isoform 5 is dominantly expressed in liver, heart and kidney. Isoform 6 is expressed in neurons.

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