

Active Recombinant Human DNM1L Protein, Myc/DDK-tagged

Cat. No. DNM1L-8493H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant protein of human dynamin 1-like (DNM1L), transcript variant 1 with a C-Myc/DDK tag was expressed in HEK293T.
Species	Human
Source	HEK293
Description	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.
Bio-activity	Cell treatment
Molecular Mass	81.7 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

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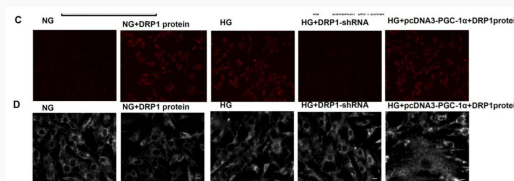
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Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol

GENE INFORMATION

Gene Name	DNM1L dynamin 1 like [Homo sapiens (human)]
Official Symbol	DNM1L
Synonyms	DNM1L; dynamin 1 like; DLP1; DRP1; DVLP; EMPF; OPA5; EMPF1; DYMPLE; HDYNIV; dynamin-1-like protein; Dnm1p/Vps1p-like protein; dynamin family member proline-rich carboxyl-terminal domain less; dynamin-like protein 4; dynamin-like protein IV; dynamin-related protein 1; EC 3.6.5.5
Gene ID	10059
mRNA Refseq	NM_012063
Protein Refseq	NP_036193
MIM	603850
UniProt ID	O00429

Inhibitory action of PGC-1alpha on mitochondrial fragmentation



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**occurs via the
downregulation of
DRP1.**

Images show the ROS production (panel C) and mitochondrial morphology changes (panel D) in rat glomerular mesangial cells (RMCs) exposed to normal glucose (NG), NG incubated with DRP1 protein and high glucose (HG) conditions, RMCs transfected with DRP1 shRNA to silence the expression of DRP1 under HG conditions (HG+DRP1-shRNA), and RMCs transfected with pcDNA-PGC-1alpha to overexpress PGC-1alpha and exogenous DPR1 protein under HG conditions (HG+pcDNA3-PGC-1alpha+DRP1).

