

## Product datasheet for TP321708

### DRP1 (DNM1L) (NM\_012062) Human Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins  
**Description:** Recombinant protein of human dynamin 1-like (DNM1L), transcript variant 1, 20 µg  
**Species:** Human  
**Expression Host:** HEK293T  
**Expression cDNA Clone or AA Sequence:** >RC221708 representing NM\_012062  
Red=Cloning site Green=Tags(s)

MEALIPVINKLQDVFNVTGADIIQLPQIVVGTQSSGKSSVLESVGRDLLPRGTGIVTRRPLILQLVHV  
SQEDKRKTTGEENGVEAEWGWKFLHTKNKLYTDFDEIRQEIENETERISGNNKGVSPPIHLKIFSPNVV  
NLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNSIILAVTAANTDMATSEALKISREVDPDGRRT  
LAVITKLDLMDAGTDAMDVLMGRVIPVKGIIIGVNRSQLDINNKKSVTDSIRDEYAFQKYPPLANRN  
GTKYLARTLNRLMHHRDCLPELKTRINVLAAQYQSLNLSYGEVDDKATLLQLITKFATEYCNTEIG  
TAKYIETSELGGARICYIFHETFGRTLSDPLGGLNTIDILTAINRATGPRPALFVPEVSFELLVKRQ  
IKRLEEPSLRCELVHEEMQRHIIQHCSNYSTQELLRFKPLHDAIVEVVTCLLRKRLPVTNEMVHNLVAIE  
LAYINTKHPDFADACGLMNNNIEEQRRLARELPSAVSRDKSSKVPSALAPASQEPSAASAEADGKLI  
QDSRRETKNVASGGGGVGDGVQEPTTGNWRGMLKTSKAEELLAEEKSKPIIMPASPQKGHAVNLLDVP  
V  
PVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPAKVMHFLVNHVKDTLQSELVGQLYKSSLLDDLL  
TESDMAQRREKAAADMLKALQGASQIIAEIREHLW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Tag:** C-Myc/DDK  
**Predicted MW:** 81.7 kDa  
**Concentration:** >0.05 µg/µL as determined by microplate BCA method  
**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining  
**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol  
**Bioactivity:** Cell treatment (PMID: [25853493](#))  
**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.



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**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**Storage:** Store at -80°C.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** [NP\\_036192](#)

**Locus ID:** 10059

**UniProt ID:** [O00429](#)

**RefSeq Size:** 3293

**Cytogenetics:** 12p11.21

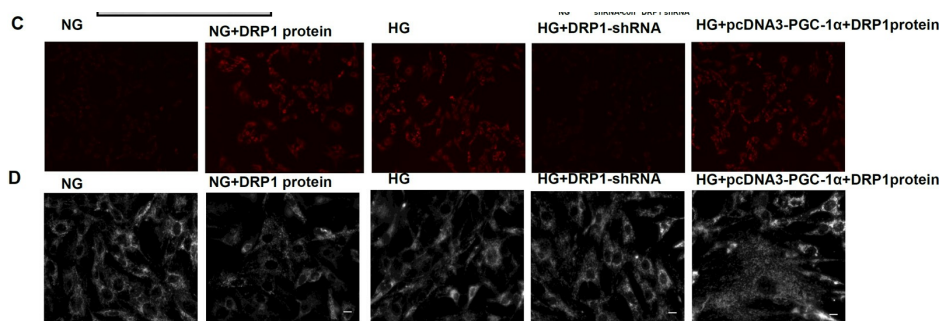
**RefSeq ORF:** 2208

**Synonyms:** DLP1; DRP1; DVLP; DYMPLE; EMPF; EMPF1; HDYNIV; OPA5

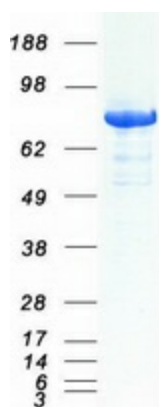
**Summary:** This gene encodes a member of the dynamin superfamily of GTPases. The encoded protein mediates mitochondrial and peroxisomal division, and is involved in developmentally regulated apoptosis and programmed necrosis. Dysfunction of this gene is implicated in several neurological disorders, 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]

**Protein Pathways:** Endocytosis, Fc gamma R-mediated phagocytosis

### Product images:



Inhibitory action of PGC-1alpha on mitochondrial fragmentation 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 (OriGene TP321708) 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 DRP1 protein under HG conditions (HG+pcDNA3-PGC-1alpha+DRP1). Figure cited from PLoS ONE, PMID: 25853493



Coomassie blue staining of purified DNM1L protein (Cat# TP321708). The protein was produced from HEK293T cells transfected with DNM1L cDNA clone (Cat# [RC221708]) using MegaTran 2.0 (Cat# [TT210002]).