

Product datasheet for **TP321708M**

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, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC221708 representing NM_012062 Red=Cloning site Green=Tags(s)

MEALIPVINKLQDVFNTVGADIIQLPQIVVGTQSSGKSSVLESVGRDLLPRGTGIVTRRPLILQLVHV
SQEDKRKTTGEENGVEAEWGWKFLHTKNKLYTDFDEIRQEIENETERISGNNKGVSPPIHLKIFSPNW
NLTLVDLPGMTKVPVGDQPKDIELQIRELILRFISNPNSIILAVTAANTDMATSEALKISREVDPDGRRT
LAVITKLDLMDAGTDAMDVLMGRVIPVKLGIGVNVNSQLDINNKKSVTDSIRDEYAFQKKYPSLANRN
GTKYLARTLNRLMHHRDCLPELKTRINVLAQYQSLNLSYGEVDDKSATLLQLITKFATEYCNTIEG
TAKYIETSELGGARICYIFHETFGRTLESVDPLGGLNTDILTAINRATGPRPALFVPEVSFELLVKRQ
IKRLEEPSLRCELVHEEMQRRIQHCSNYSTQELLRFKLDHAIVEVTCLLRKLPTNEMVHNLVAIE
LAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSAVSRDKSSKVPALAPASQEPSPAASAEADGKLI
QDSRRETKNVASGGGGVGDGVQEPTTGNWRGMLKTSKAEELLAEEKSKPIPIMPASPQKGHAVNLLDVPV
PVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLVNHVKDTLQSELVGLYKSSLLDDLL
TESEDMAQRRKEAADMLKALQGASQIIAIRETHLW

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



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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](#), [B4DYR6](#)

RefSeq Size: 3293

Cytogenetics: 12p11.21

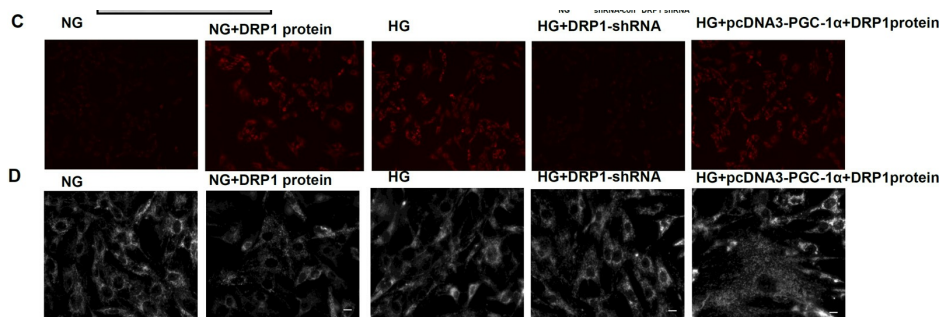
RefSeq ORF: 2208

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

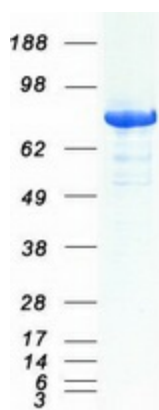
Summary: This gene encodes a member of the dynamin superfamily of GTPases. The encoded protein mediates mitochondrial and peroxisomal division, and is involved in developmentally regulated apoptosis and programmed necrosis. Dysfunction of this gene is implicated in several neurological disorders, including 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-1 alpha 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-1 alpha to overexpress PGC-1 alpha and exogenous DPR1 protein under HG conditions (HG+pcDNA3-PGC-1 alpha+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]).