

# eIF2D (2D10): sc-293396

## BACKGROUND

Ligatin, also known as HCA56 (hepatocellular carcinoma-associated antigen 56) or LGTN, is a 584 amino acid peripheral membrane protein belonging to the ligatin family. Expressed during embryonic development and in early differentiated states, ligatin is a trafficking receptor for phosphoglycoproteins. Ligatin localizes to phosphoglycoproteins within endosomes and at the cell periphery where it participates in specific metabolic processes as well as intercellular adhesion. Involved in RNA binding and translation initiation through its single PUA domain and SUI1 domain, ligatin is down-regulated with long-lasting effects by the activation of Ca<sup>2+</sup> dependent N-methyl-D-aspartate (NMDA) subclass of excitatory amino acid (EAA) receptors. Ligatin is considered a marker protein for membrane-vesicle transport systems. Ligatin exists as two alternatively splice variants and is encoded by a gene located on human chromosome 1.

## REFERENCES

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3. Marchase, R.B., et al. 1982. A possible role for ligatin and the phosphoglycoproteins it binds in calcium-dependent retinal cell adhesion. *J. Cell. Biochem.* 18: 461-468.
4. Jakoi, E.R., et al. 1987. Ligatin: a peripheral membrane protein with covalently bound palmitic acid. *J. Biol. Chem.* 262: 1300-1304.
5. Jakoi, E.R., et al. 1989. Molecular cloning of the cDNA for ligatin. *J. Cell Sci.* 93: 227-232.
6. Jakoi, E.R., et al. 1992. Excitatory amino acid receptor activation produces a selective and long-lasting modulation of gene expression in hippocampal neurons. *Brain Res.* 582: 282-290.
7. Perlin, J.B., et al. 1993. Kindling produces long-lasting and selective changes in gene expression of hippocampal neurons. *Proc. Natl. Acad. Sci. USA* 90: 1741-1745.
8. Jakoi, E.R., et al. 1995. Post-transcriptional regulation of gene expression in hippocampal neurons by glutamate receptor activation. *Brain Res.* 693: 124-132.
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## CHROMOSOMAL LOCATION

Genetic locus: EIF2D (human) mapping to 1q32.1.

## SOURCE

eIF2D (2D10) is a mouse monoclonal antibody raised against amino acids 485-584 of eIF2D of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

eIF2D (2D10) is recommended for detection of eIF2D of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for eIF2D siRNA (h): sc-88042, eIF2D shRNA Plasmid (h): sc-88042-SH and eIF2D shRNA (h) Lentiviral Particles: sc-88042-V.

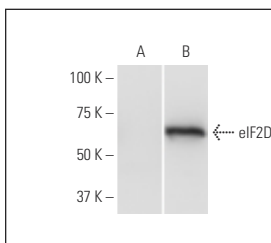
Molecular Weight of eIF2D: 65 kDa.

Positive Control: eIF2D transfected 293T whole cell lysates.

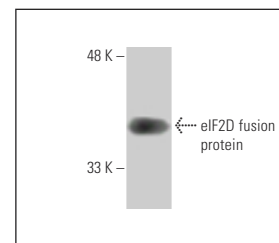
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



eIF2D (2D10): sc-293396. Western blot analysis of eIF2D expression in non-transfected (A) and eIF2D transfected (B) 293T whole cell lysates.



eIF2D (2D10): sc-293396. Western blot analysis of human recombinant eIF2D fusion protein.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.