

eIF2D (E-15): sc-160488

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 Ca²⁺ 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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2. Gaston, S.M., Marchase, R.B. and Jakoi, E.R. 1982. Brain ligatin: a membrane lectin that binds acetylcholinesterase. *J. Cell. Biochem.* 18: 447-459.
3. Marchase, R.B., Koro, L.A., Kelly, C.M. and McClay, D.R. 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., Ross, P.E., Ping Ting-Beall, H., Kaufman, B. and Vanaman, T.C. 1987. Ligatin: a peripheral membrane protein with covalently bound palmitic acid. *J. Biol. Chem.* 262: 1300-1304.
5. Jakoi, E.R., Brown, A.L., Ho, Y.S. and Snyderman, R. 1989. Molecular cloning of the cDNA for ligatin. *J. Cell Sci.* 93: 227-232.
6. Jakoi, E.R., Sombati, S., Gerwin, C. and DeLorenzo, R.J. 1992. Excitatory amino acid receptor activation produces a selective and long-lasting modulation of gene expression in hippocampal neurons. *Brain Res.* 582: 282-290.

CHROMOSOMAL LOCATION

Genetic locus: EIF2D (human) mapping to 1q32.1; EIF2D (mouse) mapping to 1 E4.

SOURCE

eIF2D (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of eIF2D of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160488 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

eIF2D (E-15) is recommended for detection of eIF2D of mouse, rat and 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

eIF2D (E-15) is also recommended for detection of eIF2D in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for eIF2D siRNA (h): sc-88042, eIF2D siRNA (m): sc-146725, eIF2D shRNA Plasmid (h): sc-88042-SH, eIF2D shRNA Plasmid (m): sc-146725-SH, eIF2D shRNA (h) Lentiviral Particles: sc-88042-V and eIF2D shRNA (m) Lentiviral Particles: sc-146725-V.

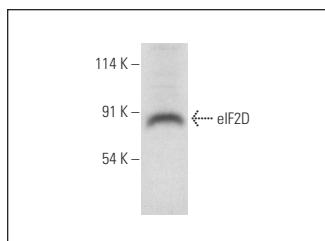
Molecular Weight of eIF2D: 65 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



eIF2D (E-15): sc-160488. Western blot analysis of eIF2D expression in Jurkat whole cell lysate.

STORAGE

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

MONOS
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Try **eIF2D (2D10): sc-293396**, our highly recommended monoclonal alternative to eIF2D (E-15).