

eIF2D (G-14): sc-160489

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

1. Marchase, R.B., et al. 1982. Retinal ligatin recognizes glycoproteins bearing oligosaccharides terminating in phosphodiester-linked glucose. *Cell* 28: 813-820.
2. Gaston, S.M., et al. 1982. Brain ligatin: a membrane lectin that binds acetylcholinesterase. *J. Cell. Biochem.* 18: 447-459.
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.

CHROMOSOMAL LOCATION

Genetic locus: EIF2D (human) mapping to 1q32.1; Eif2D (mouse) mapping to 1 E4.

SOURCE

eIF2D (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-160489 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

eIF2D (G-14) 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 (G-14) is also recommended for detection of ligatin 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.

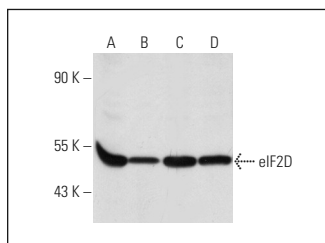
Molecular Weight of eIF2D: 65 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

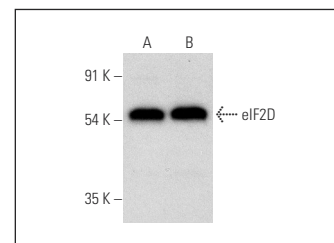
RECOMMENDED SECONDARY REAGENTS

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 (G-14): sc-160489. Western blot analysis of eIF2D expression in K-562 (A), U-937 (B), Jurkat (C) and HeLa (D) whole cell lysates.



eIF2D (G-14): sc-160489. Western blot analysis of eIF2D expression in ZR-75-1 (A) and MCF7 (B) whole cell lysates.

RESEARCH USE

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



Try **eIF2D (2D10): sc-293396**, our highly recommended monoclonal alternative to eIF2D (G-14).