EML6 (D-18): sc-246524



The Power to Question

BACKGROUND

EML6 (echinoderm microtubule-associated protein-like 6), also known as EMAP-6 or EML5L, is a 1,958 amino acid protein that belongs to the WD repeat EMAP family. EML6 contains 30 WD repeats, which are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. EML6 is thought to modify the assembly dynamics of microtubules, resulting in slightly longer and more dynamic microtubules. Localized to the cytoplasm, EML6 is expressed as two isoforms produced by alternative splicing events.

REFERENCES

- 1. van der Voorn, L. and Ploegh, H.L. 1992. The WD-40 repeat. FEBS Lett. 307: 131-134.
- 2. Neer, E.J., Schmidt, C.J., Nambudripad, R. and Smith, T.F. 1994. The ancient regulatory-protein family of WD-repeat proteins. Nature 371: 297-300.
- Garcia-Higuera, I., Fenoglio, J., Li, Y., Lewis, C., Panchenko, M.P., Reiner, O., Smith, T.F. and Neer, E.J. 1996. Folding of proteins with WD-repeats: comparison of six members of the WD-repeat superfamily to the G protein β subunit. Biochemistry 35: 13985-13994.
- Garcia-Higuera, I., Gaitatzes, C., Smith, T.F. and Neer, E.J. 1998. Folding a WD repeat propeller. Role of highly conserved aspartic acid residues in the G protein β subunit and Sec13. J. Biol. Chem. 273: 9041-9049.
- Smith, T.F., Gaitatzes, C., Saxena, K. and Neer, E.J. 1999. The WD repeat: a common architecture for diverse functions. Trends Biochem. Sci. 24: 181-185.
- Li, D. and Roberts, R. 2001. WD-repeat proteins: structure characteristics, biological function, and their involvement in human diseases. Cell. Mol. Life Sci. 58: 2085-2097.
- Cotsapas, C., Speliotes, E.K., Hatoum, I.J., Greenawalt, D.M., Dobrin, R., Lum, P.Y., Suver, C., Chudin, E., Kemp, D., Reitman, M., Voight, B.F., Neale, B.M., Schadt, E.E., Hirschhorn, J.N., Kaplan, L.M. and Daly, M.J. 2009. Common body mass index-associated variants confer risk of extreme obesity. Hum. Mol. Genet. 18: 3502-3507.

CHROMOSOMAL LOCATION

Genetic locus: EML6 (human) mapping to 2p16.2; Eml6 (mouse) mapping to 11 A3.3.

SOURCE

EML6 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EML6 of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-246524 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EML6 (D-18) is recommended for detection of EML6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other EML family members.

EML6 (D-18) is also recommended for detection of EML6 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for EML6 siRNA (m): sc-142396, EML6 shRNA Plasmid (m): sc-142396-SH and EML6 shRNA (m) Lentiviral Particles: sc-142396-V.

Molecular Weight of EML6 isoforms: 218/209 kDa.

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) 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.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com