

COTL1 (T-12): sc-160247

BACKGROUND

COTL1 (coactosin-like 1), also known as CLP, is a 142 amino acid cytoplasmic and cytoskeletal protein that belongs to the actin-binding proteins ADF family and coactosin subfamily. Widely expressed, COTL1 was first identified in slime mold and is found at highest levels in kidney, placenta, lung and peripheral blood leukocytes, with low levels found in pancreas, liver and brain. COTL1 is one of many proteins that participate in regulation of Actin's cytoskeleton through a calcium dependent mechanism, but has not been shown to have a direct effect on Actin depolymerization. COTL1 contains one ADF-H domain and interacts with 5-LO (5-lipoxygenase), an enzyme that plays a role in the biosynthesis of leukotriene and is expressed in multiple types of leukocytes. The gene encoding COTL1 maps to human chromosome 16q24.1.

REFERENCES

1. Chen, K.S., et al. 1997. Homologous recombination of a flanking repeat gene cluster is a mechanism for a common contiguous gene deletion syndrome. *Nat. Genet.* 17: 154-163.
2. Provost, P., et al. 1999. Interaction of 5-lipoxygenase with cellular proteins. *Proc. Natl. Acad. Sci. USA* 96: 1881-1885.
3. Provost, P., et al. 2001. Coactosin-like protein, a human F-actin-binding protein: critical role of lysine-75. *Biochem. J.* 359: 255-263.
4. Provost, P., et al. 2001. 5-Lipoxygenase interacts with coactosin-like protein. *J. Biol. Chem.* 276: 16520-16527.
5. Doucet, J., et al. 2002. Molecular cloning and functional characterization of mouse coactosin-like protein. *Biochem. Biophys. Res. Commun.* 290: 783-789.
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7. Online Mendelian Inheritance in Man, OMIM[™]. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 606748. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: COTL1 (human) mapping to 16q24.1; Cotl1 (mouse) mapping to 8 E1.

SOURCE

COTL1 (T-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COTL1 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-160247 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

COTL1 (T-12) is recommended for detection of COTL1 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).

COTL1 (T-12) is also recommended for detection of COTL1 in additional species, including equine, bovine and avian.

Suitable for use as control antibody for COTL1 siRNA (h): sc-93010, COTL1 siRNA (m): sc-142523, COTL1 shRNA Plasmid (h): sc-93010-SH, COTL1 shRNA Plasmid (m): sc-142523-SH, COTL1 shRNA (h) Lentiviral Particles: sc-93010-V and COTL1 shRNA (m) Lentiviral Particles: sc-142523-V.

Molecular Weight of COTL1: 16 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.