SANTA CRUZ BIOTECHNOLOGY, INC.

Macoilin (S-16): sc-103606

BACKGROUND

Macoilin, also known as TMEM57 (transmembrane protein 57), is a 664 amino acid multi-pass membrane protein that is expressed in lung, testis, pancreas, spleen, liver, brain, thymus, kidney and muscle tissue. Existing as three alternatively spliced isoforms, human Macoilin is thought to play a role in axonal traffic or signaling events and shares 99% sequence homology with its mouse counterpart, suggesting a conserved function between species. The gene encoding Macoilin maps to chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinsons Disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Kumada, M., et al. 2002. Entire sequence of a mouse chromosomal segment containing the gene Rhced and a comparative analysis of the homologous human sequence. Gene 299: 165-172.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610301. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Kuvbachieva, A., et al. 2004. Identification of a novel brain-specific and Reelin-regulated gene that encodes a protein colocalized with synapsin. Eur. J. Neurosci. 20: 603-610.
4. Colland, F., et al. 2004. Functional proteomics mapping of a human signaling pathway. Genome Res. 14: 1324-1332.
5. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
6. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.

CHROMOSOMAL LOCATION

Genetic locus: TMEM57 (human) mapping to 1p36.11; Tmem57 (mouse) mapping to 4 D3.

SOURCE

Macoilin (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Macoilin 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-103606 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.

APPLICATIONS

Macoilin (S-16) is recommended for detection of Macoilin 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 TMEM family members.

Suitable for use as control antibody for Macoilin siRNA (h): sc-78626, Macoilin siRNA (m): sc-106188, Macoilin shRNA Plasmid (h): sc-78626-SH, Macoilin shRNA Plasmid (m): sc-106188-SH, Macoilin shRNA (h) Lentiviral Particles: sc-78626-V and Macoilin shRNA (m) Lentiviral Particles: sc-106188-V.

Molecular Weight of Macoilin: 76 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.

RESEARCH USE

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

PROTOCOLS

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