SANTA CRUZ BIOTECHNOLOGY, INC.

Capucin (N-15): sc-167388



The Power to Question

BACKGROUND

Capucin, also known as TMEM90A (transmembrane protein 90A), caudate-and putamen-enriched sequence or IFITMD4, is a 238 amino acid multi-pass membrane protein that belongs to the Capucin family. Expressed at highest levels in dorsal striatum, Capucin is also found at lower levels in the ventral tegmental area and ventromedial striatum and is encoded by a gene that maps to human chromosome 14q24.3. Housing over 700 genes and comprising nearly 3.5% of the human genome, Chromosome 14 encodes the presinilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease (AD). The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder α 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

REFERENCES

- 1. Edwards, S.J., et al. 1997. The mutational spectrum in Treacher Collins syndrome reveals a predominance of mutations that create a premature-termination codon. Am. J. Hum. Genet. 60: 515-524.
- McDaniel, L.D., et al. 1997. Confirmation of homozygosity for a single nucleotide substitution mutation in a Cockayne syndrome patient using monoallelic mutation analysis in somatic cell hybrids. Hum. Mutat. 10: 317-321.
- 3. Crawford, M.J., et al. 1997. Human and murine PTX1/Ptx1 gene maps to the region for Treacher Collins syndrome. Mamm. Genome. 8: 841-845.
- 4. Finch, R., et al. 2005. Familial adenomatous polyposis and mental retardation caused by a *de novo* chromosomal deletion at 5q15-q22: report of a case. Dis. Colon Rectum 48: 2148-2152.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 609999. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Anindya, R., et al. 2007. Damage-induced ubiquitylation of human RNA polymerase II by the ubiquitin ligase Nedd4, but not Cockayne syndrome proteins or BRCA1. Mol. Cell 28: 386-397.
- Vera-Carbonell, A., et al. 2009. Characterization of a *de novo* complex chromosomal rearrangement in a patient with cri-du-chat and trisomy 5p syndromes. Am. J. Med. Genet. A 149A: 2513-2521.
- 8. Ravandi, F., et al. 2009. Superior outcome with hypomethylating therapy in patients with acute myeloid leukemia and high-risk myelodysplastic syndrome and chromosome 5 and 7 abnormalities. Cancer 115: 5746-5751.
- 9. Sazawal, S., et al. 2009. Haematological & molecular profile of acute myelogenous leukaemia in India. Indian J. Med. Res. 129: 256-261.

CHROMOSOMAL LOCATION

Genetic locus: SYNDIG1L (human) mapping to 14q24.3; Tmem90a (mouse) mapping to 12 D1.

SOURCE

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

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-167388 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Capucin (N-15) is recommended for detection of Capucin 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).

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

Suitable for use as control antibody for Capucin siRNA (h): sc-92407, Capucin siRNA (m): sc-142007, Capucin shRNA Plasmid (h): sc-92407-SH, Capucin shRNA Plasmid (m): sc-142007-SH, Capucin shRNA (h) Lentiviral Particles: sc-92407-V and Capucin shRNA (m) Lentiviral Particles: sc-142007-V.

Molecular Weight of Capucin: 26 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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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.