

Treacle (N-18): sc-49531

BACKGROUND

Treacle is a serine/alanine-rich 1,411-amino acid nuclear phosphoprotein that interacts with upstream binding factor (UBF) and affects transcription of the ribosomal DNA gene. Treacle is also involved in early embryonic development, particularly in the craniofacial complex, and may play a role in nucleolar-cytoplasmic transport. The Treacle protein contains three domains with unique N- and C-termini and a large central repeat domain. Mutations in TCOF1, the gene that encodes for Treacle, cause Treacher Collins-Franceschetti syndrome (TCS), a disorder characterized by defects in craniofacial development. Symptoms of TCS include conductive hearing loss, hypoplasia of the mandible and maxilla, downward sloping palpebral fissures and cleft palate.

REFERENCES

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2. Masotti, C., et al. 2005. A functional SNP in the promoter region of TCOF1 is associated with reduced gene expression and YY1 DNA-protein interaction. *Gene* 359: 44-52.
3. Gonzales, B., et al. 2005. Cloning and functional characterization of the *Xenopus* orthologue of the Treacher Collins syndrome (TCOF1) gene product. *Gene* 359: 73-80.
4. Knutson, M.D., et al. 2005. Iron release from macrophages after erythrophagocytosis is upregulated by ferroportin 1 overexpression and downregulated by hepcidin. *Proc. Natl. Acad. Sci. USA* 102: 1324-1328.
5. Splendore, A., et al. 2005. TCOF1 mutation database: novel mutation in the alternatively spliced exon 6A and update in mutation nomenclature. *Hum. Mutat.* 25: 429-434.
6. Thiel, C.T., et al. 2005. Exclusion of TCOF1 mutations in a case of bilateral Goldenhar syndrome and one familial case of microtia with meatal atresia. *Clin. Dysmorphol.* 14: 67-71.
7. Horiuchi, K., et al. 2005. Mutational analysis of the TCOF1 gene in 11 Japanese patients with Treacher Collins syndrome and mechanism of mutagenesis. *Am. J. Med. Genet. A.* 134: 363-367.

CHROMOSOMAL LOCATION

Genetic locus: TCOF1 (human) mapping to 5q32; Tcof1 (mouse) mapping to 18 E1.

SOURCE

Treacle (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Treacle 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-49531 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Treacle (N-18) is recommended for detection of Treacle (Treacher Collins syndrome protein) 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).

Treacle (N-18) is also recommended for detection of Treacle (Treacher Collins syndrome protein) in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Treacle siRNA (h): sc-61707, Treacle siRNA (m): sc-61708, Treacle shRNA Plasmid (h): sc-61707-SH, Treacle shRNA Plasmid (m): sc-61708-SH, Treacle shRNA (h) Lentiviral Particles: sc-61707-V and Treacle shRNA (m) Lentiviral Particles: sc-61708-V.

Molecular Weight (predicted) of Treacle isoforms: 156/152/144/97 kDa.

Molecular Weight (observed) of Treacle: 183 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132.

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.

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.



MONOS
Satisfaction
Guaranteed

Try **Treacle (H-6): sc-374536**, our highly recommended monoclonal alternative to Treacle (N-18).