

# Treacle (H-90): sc-67196

## 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

1. So, R.B., et al. 2004. Another face of the Treacher Collins syndrome (TCOF1) gene: identification of additional exons. *Gene* 328: 49-57.
2. 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.
3. 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.
4. Knutson, M.D., et al. 2005. Iron release from macrophages after erythrophagocytosis is upregulated by ferroportin 1 overexpression and down-regulated by hepcidin. *Proc. Natl. Acad. Sci. USA* 102: 1324-1328.
5. 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.
6. 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.
7. 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

Treacle (H-90) is a rabbit polyclonal antibody raised against amino acids 1-90 mapping at 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.

## STORAGE

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

## APPLICATIONS

Treacle (H-90) 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), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

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.

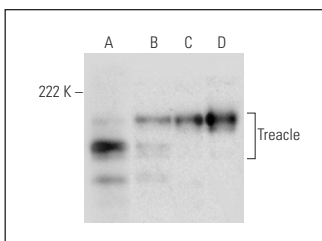
Molecular Weight (observed) of Treacle: 183 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, A-431 nuclear extract: sc-2122 or MCF7 nuclear extract: sc-2149.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Treacle (H-90): sc-67196. Western blot analysis of Treacle expression in Jurkat (A), Ramos (B), A-431 (C) and MCF7 (D) nuclear extracts.

## RESEARCH USE

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



Try **Treacle (H-6): sc-374536**, our highly recommended monoclonal alternative to Treacle (H-90).