

TCF-4 (H-125): sc-13027



The Power to Question

BACKGROUND

T cell factors (TCFs) comprise a family of DNA-binding transcriptional activators that are essential for lymphoid cell development. These transcription factors are activated by the Wnt-1 and Wingless pathways and are characterized by the presence of a conserved protein motif, the high mobility group (HMG) 1 box, which mediates DNA binding. TCF-4 mainly localizes in the cytoplasm and is transported into the nucleus directly bound to β -catenin in a cooperative manner. This TCF-4/ β -catenin complex induces expression of Wnt target genes, including multiple cancer-associated genes. c-Jun also interacts with TCF-4 and β -catenin, and the phosphorylation-dependent interaction between c-Jun and TCF-4 regulates intestinal tumorigenesis by integrating JNK and APC/ β -catenin. TCF-4 is also implicated in bipolar affective disorder.

CHROMOSOMAL LOCATION

Genetic locus: TCF7L2 (human) mapping to 10q25.2.

SOURCE

TCF-4 (H-125) is a rabbit polyclonal antibody raised against amino acids 486-610 of TCF-4 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13027 X, 200 μ g/0.1 ml.

APPLICATIONS

TCF-4 (H-125) is recommended for detection of TCF-4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

TCF-4 (H-125) is also recommended for detection of TCF-4 in additional species, including canine and porcine.

Suitable for use as control antibody for TCF-4 siRNA (h): sc-43525, TCF-4 shRNA Plasmid (h): sc-43525-SH and TCF-4 shRNA (h) Lentiviral Particles: sc-43525-V.

TCF-4 (H-125) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TCF-4: 60 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

RESEARCH USE

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

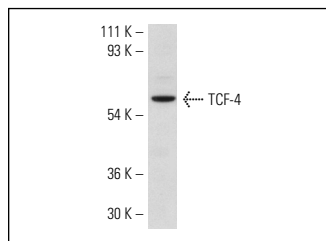
PROTOCOLS

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

STORAGE

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

DATA



TCF-4 (H-125): sc-13027. Western blot analysis of TCF-4 expression in HeLa nuclear extract.

SELECT PRODUCT CITATIONS

- Yi, F., et al. 2005. TCF-4 mediates cell type-specific regulation of proglucagon gene expression by β -catenin and glycogen synthase kinase-3. *J. Biol. Chem.* 280: 1457-1464.
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- Huang, B.L., et al. 2010. Stage-specific control of connective tissue growth factor (CTGF/CCN2) expression in chondrocytes by Sox9 and β -catenin. *J. Biol. Chem.* 285: 27702-27712.
- Jiang, J., et al. 2010. Wnt/ β -catenin pathway modulates the sensitivity of the mutant FLT3 receptor kinase inhibitors in a GSK-3 β dependent manner. *Genes Cancer* 1: 164-176.
- Mole, D.J., et al. 2011. Expression of osteopontin coregulators in primary colorectal cancer and associated liver metastases. *Br. J. Cancer* 104: 1007-1012.
- Sánchez-Tilló, E., et al. 2011. β -catenin/TCF4 complex induces the epithelial-to-mesenchymal transition (EMT)-activator ZEB1 to regulate tumor invasiveness. *Proc. Natl. Acad. Sci. USA* 108: 19204-19209.
- Ceballos, M.P., et al. 2011. Interferon- α 2 β and transforming growth factor- β 1 treatments on HCC cell lines: are Wnt/ β -catenin pathway and Smads signaling connected in hepatocellular carcinoma? *Biochem. Pharmacol.* 82: 1682-1691.
- Hernández-Maqueda, J.G., et al. 2013. Protein kinase C δ negatively modulates canonical Wnt pathway and cell proliferation in colon tumor cell lines. *PLoS ONE* 8: e58540.

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Try **TCF-4 (D-4): sc-166699** or **TCF-4 (F-7): sc-271288**, our highly recommended monoclonal alternatives to TCF-4 (H-125). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TCF-4 (D-4): sc-166699**.