

TCF23 (S-12): sc-169540

BACKGROUND

Basic helix-loop-helix (bHLH) proteins are a group of transcription factors that influence the regulation of neurogenesis, cardiogenesis, myogenesis, differentiation and cell proliferation. TCF23 (transcription factor 23), also known as OUT or bHLHa24, is a 214 amino acid nuclear protein that is expressed in liver, kidney, spleen and reproductive organs. Containing one basic helix-loop-helix (bHLH) domain, TCF23 inhibits E-box-mediated binding and trans-activation of bHLH factors. TCF23 is considered a novel basic helix-loop-helix transcription factor with Id-like inhibitory activity and is suggested to participate in the inhibition of myogenesis. TCF23 is encoded by a gene on human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

REFERENCES

1. Chaudhary, J., Cupp, A.S. and Skinner, M.K. 1997. Role of basic-helix-loop-helix transcription factors in Sertoli cell differentiation: identification of an E-box response element in the transferrin promoter. *Endocrinology* 138: 667-675.
2. Narumi, O., Mori, S., Boku, S., Tsuji, Y., Hashimoto, N., Nishikawa, S. and Yokota, Y. 2000. OUT, a novel basic helix-loop-helix transcription factor with an Id-like inhibitory activity. *J. Biol. Chem.* 275: 3510-3521.
3. Tachibana, M., Narumi, O., Muguruma, K., Yamamoto, I., Shinkai, Y. and Yokota, Y. 2001. Genomic organization and chromosomal mapping of the basic helix-loop-helix factor OUT (Tcf23/TCF23). *Cytogenet. Cell Genet.* 94: 23-25.
4. McLellan, A.S., Langlands, K. and Kealey, T. 2002. Exhaustive identification of human class II basic helix-loop-helix proteins by virtual library screening. *Gene Expr. Patterns* 2: 329-335.

CHROMOSOMAL LOCATION

Genetic locus: Tcf23 (mouse) mapping to 5 B1.

SOURCE

TCF23 (S-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TCF23 of mouse 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-169540 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.

PROTOCOLS

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

APPLICATIONS

TCF23 (S-12) is recommended for detection of TCF23 of mouse and rat 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 TCF family members.

Suitable for use as control antibody for TCF23 siRNA (m): sc-154136, TCF23 shRNA Plasmid (m): sc-154136-SH and TCF23 shRNA (m) Lentiviral Particles: sc-154136-V.

Molecular Weight of TCF23: 23 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.