SANTA CRUZ BIOTECHNOLOGY, INC.

TLE6 (E-14): sc-162320

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Notch signaling pathway controls various cellular interactions that are important for the specification of a variety of fates in both vertebrates and invertebrates. Key players in the Notch pathway are the TLE genes (for transducin-like enhancer of split, also designated ESG for enhancer of split groucho), which are human homologs of the *Drosophila* groucho gene. TLE6 (transducin-like enhancer of split 6), also known as GRG6, is a 449 amino acid cytoplasmic protein belonging to the WD repeat groucho/TLE family. As a member of the subcortical maternal complex (SCMC), TLE6 is essential for zygotes to progress beyond the first embryonic cell divisions. TLE6 contains seven WD repeats, a motif known to mediate protein-protein interactions. The WD40 repeat family of proteins is suggested to be involved in signal transduction, RNA processing, gene regulation, vesicular trafficking, cytoskeletal assembly and may play a role in the control of cytotypic differentiation.

REFERENCES

1. Tetsuka, T., et al. 2000. Inhibition of nuclear factor-κB-mediated transcription by association with the amino-terminal enhancer of split, a groucho-related protein lacking WD40 repeats. J. Biol. Chem. 275: 4383-4390.
2. Wang, J.C., et al. 2000. Transducin-like enhancer of split proteins, the human homologs of *Drosophila* groucho, interact with hepatic nuclear factor 3β. J. Biol. Chem. 275: 18418-18423.
3. Yochum, G.S. and Ayer, D.E. 2001. Pf1, a novel PHD zinc finger protein that links the TLE corepressor to the mSin3A-histone deacetylase complex. Mol. Cell. Biol. 21: 4110-4118.
4. Marçal, N., et al. 2005. Antagonistic effects of Grg6 and groucho/TLE on the transcription repression activity of brain factor 1/FoxG1 and cortical neuron differentiation. Mol. Cell. Biol. 25: 10916-10929.
5. Bajoghli, B. 2007. Evolution of the groucho/Tle gene family: gene organization and duplication events. Dev. Genes Evol. 217: 613-618.
6. Sekiya, T. and Zaret, K.S. 2007. Repression by groucho/TLE/Grg proteins: genomic site recruitment generates compacted chromatin *in vitro* and impairs activator binding *in vivo*. Mol. Cell 28: 291-303.

CHROMOSOMAL LOCATION

Genetic locus: Tle6 (mouse) mapping to 10 C1.

SOURCE

TLE6 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TLE6 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-162320 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

TLE6 (E-14) is recommended for detection of TLE6 of mouse and rat 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); non cross-reactive with other TLE family members.

Suitable for use as control antibody for TLE6 siRNA (m): sc-154292, TLE6 shRNA Plasmid (m): sc-154292-SH and TLE6 shRNA (m) Lentiviral Particles: sc-154292-V.

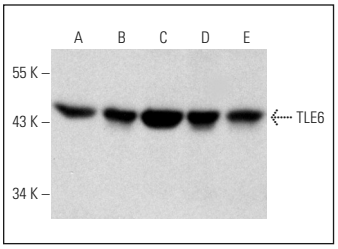
Molecular Weight of TLE6: 50 kDa.

Positive Controls: TLE6 (m): 293T Lysate: sc-124080, mouse testis extract: sc-2405 or mouse ovary extract: sc-2404.

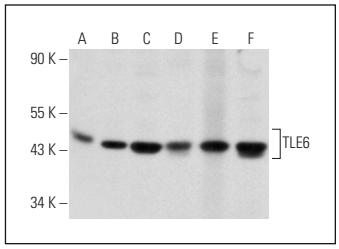
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



TLE6 (E-14): sc-162320. Western blot analysis of TLE6 expression in c4 (**A**), F9 (**B**) and AMJ2-C8 (**C**) whole cell lysates and mouse testis (**D**) and mouse ovary (**E**) tissue extracts.



TLE6 (E-14): sc-162320. Western blot analysis of TLE6 expression in non-transfected 293T: sc-117752 (**A**), mouse TLE6 transfected 293T: sc-124080 (**B**) and Jurkat (**C**) whole cell lysates and mouse ovary (**D**), mouse embryo (**E**) and mouse testis (**F**) tissue extracts.

STORAGE

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