

TLE2 (D-10): sc-374226

BACKGROUND

The Notch signaling pathway controls cellular interactions important for the specification of a variety of fates in both invertebrates and vertebrates. 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. Groucho is a transcriptional repressor that plays a key role in neurogenesis, segmentation and sex determination. TLEs associate with chromatin in live cells and specifically with histone H3, but not with other core histones. Expression of the TLE genes, TLE1, TLE2, TLE3 and TLE4, correlate with immature epithelial cells that are progressing toward a terminally differentiated state, suggesting a role during epithelial differentiation. TLE1, TLE2 and TLE3 have elevated expression in cervical squamous metaplasias and carcinomas, while TLE4 is most highly expressed in the brain, particularly in the caudate nucleus. TLE1 and TLE4 contain SP and WD40 domains, through which TLE1 binds AML1 to inhibit AML1-induced transactivation of the CSF1 receptor. In early stages of cell differentiation, TLE1 is upregulated, and TLE2 and TLE4 are downregulated. In later stages, TLE2 and TLE4 are upregulated, and expression of TLE1 decreases.

REFERENCES

1. Stifani, S., et al. 1992. Human homologs of a *Drosophila* enhancer of split gene product define a novel family of nuclear proteins. *Nat. Genet.* 2: 119-127.
2. Paroush, Z., et al. 1994. Groucho is required for *Drosophila* neurogenesis, segmentation, and sex determination and interacts directly with hairy-related bHLH proteins. *Cell* 79: 805-815.
3. Liu, Y., et al. 1996. Epithelial expression and chromosomal location of human TLE genes: implications for notch signaling and neoplasia. *Genomics* 31: 58-64.

CHROMOSOMAL LOCATION

Genetic locus: TLE2 (human) mapping to 19p13.3; Tle2 (mouse) mapping to 10 C1.

SOURCE

TLE2 (D-10) is a mouse monoclonal antibody raised against amino acids 230-420 of TLE2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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-374226 X, 200 µg/0.1 ml.

TLE2 (D-10) is available conjugated to agarose (sc-374226 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374226 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374226 PE), fluorescein (sc-374226 FITC), Alexa Fluor[®] 488 (sc-374226 AF488), Alexa Fluor[®] 546 (sc-374226 AF546), Alexa Fluor[®] 594 (sc-374226 AF594) or Alexa Fluor[®] 647 (sc-374226 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374226 AF680) or Alexa Fluor[®] 790 (sc-374226 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TLE2 (D-10) is recommended for detection of TLE2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 TLE2 siRNA (h): sc-38560, TLE2 siRNA (m): sc-38561, TLE2 shRNA Plasmid (h): sc-38560-SH, TLE2 shRNA Plasmid (m): sc-38561-SH, TLE2 shRNA (h) Lentiviral Particles: sc-38560-V and TLE2 shRNA (m) Lentiviral Particles: sc-38561-V.

TLE2 (D-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of TLE2: 80 kDa.

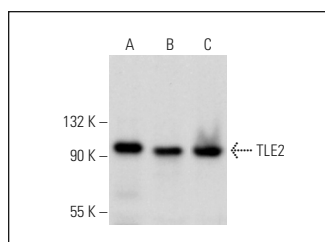
Molecular Weight (observed) of TLE2: 92 kDa.

Positive Controls: RPMI2650 whole cell lysate: sc-364192, AN3 CA whole cell lysate: sc-24662 or T-47D cell lysate: sc-2293.

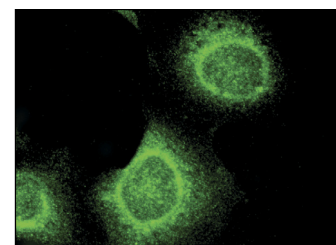
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



TLE2 (D-10): sc-374226. Western blot analysis of TLE2 expression in RPMI2650 (A), AN3 CA (B) and T-47D (C) whole cell lysates.



TLE2 (D-10): sc-374226. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

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.

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