SANTA CRUZ BIOTECHNOLOGY, INC.

KCTD12 (F-6): sc-271855

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The BTB (broad-complex, tramtrack and bric a brac) domain, also known as the POZ (POxvirus and Zinc finger) domain, is an N-terminal homodimerization domain that contains multiple copies of Kelch repeats and/or C_2H_2-type zinc fingers. Proteins that contain BTB domains are thought to be involved in transcriptional regulation via control of chromatin structure and function. KCTD12 (potassium channel tetramerization domain containing 12), also known as PFET1 or PFETIN, is a 325 amino acid protein that is expressed in fetal organs, with highest levels in the cochlea and brain and extremely low levels in adult organs, such as brain and lung. KCTD12 is considered a prognostic biomarker of gastrointestinal stromal tumors.

REFERENCES

1. Bardwell, V.J. and Treisman, R. 1994. The POZ domain: a conserved protein-protein interaction motif. Genes Dev. 8: 1664-1677.
2. Zollman, S., et al. 1994. The BTB domain, found primarily in zinc finger proteins, defines an evolutionarily conserved family that includes several developmentally regulated genes in *Drosophila*. Proc. Natl. Acad. Sci. USA 91: 10717-10721.
3. Ahmad, K.F., et al. 1998. Crystal structure of the BTB domain from PLZF. Proc. Natl. Acad. Sci. USA 95: 12123-12128.
4. Resendes, B.L., et al. 2004. Isolation from cochlea of a novel human intronless gene with predominant fetal expression. J. Assoc. Res. Otolaryngol. 5: 185-202.

CHROMOSOMAL LOCATION

Genetic locus: KCTD12 (human) mapping to 13q22.3; Kctd12 (mouse) mapping to 14 E2.3.

SOURCE

KCTD12 (F-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 117-137 within an internal region of KCTD12 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KCTD12 (F-6) is available conjugated to agarose (sc-271855 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271855 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271855 PE), fluorescein (sc-271855 FITC), Alexa Fluor® 488 (sc-271855 AF488), Alexa Fluor® 546 (sc-271855 AF546), Alexa Fluor® 594 (sc-271855 AF594) or Alexa Fluor® 647 (sc-271855 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271855 AF680) or Alexa Fluor® 790 (sc-271855 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271855 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

KCTD12 (F-6) is recommended for detection of KCTD12 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).

KCTD12 (F-6) is also recommended for detection of KCTD12 in additional species, including canine.

Suitable for use as control antibody for KCTD12 siRNA (h): sc-75374, KCTD12 siRNA (m): sc-146383, KCTD12 shRNA Plasmid (h): sc-75374-SH, KCTD12 shRNA Plasmid (m): sc-146383-SH, KCTD12 shRNA (h) Lentiviral Particles: sc-75374-V and KCTD12 shRNA (m) Lentiviral Particles: sc-146383-V.

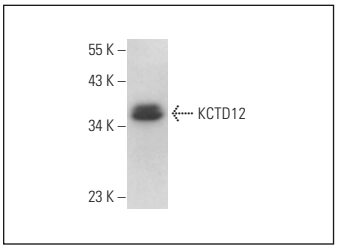
Molecular Weight of KCTD12: 36 kDa.

Positive Controls: mouse embryo extract: sc-364239 or U-87 MG cell lysate: sc-2411.

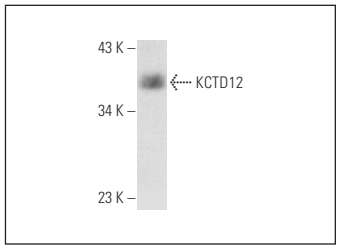
RECOMMENDED SUPPORT REAGENTS

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



KCTD12 (F-6): sc-271855. Western blot analysis of KCTD12 expression in U-87 MG whole cell lysate.



KCTD12 (F-6): sc-271855. Western blot analysis of KCTD12 expression in mouse embryo tissue extract.

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.