

TTLL6 (P-12): sc-165829

BACKGROUND

A large protein group known as the tubulin tyrosine ligase-like family (TTLL) is implied to catalyze ligations of amino acids to tubulins and other substrates. Each member contains a characteristic TTL domain. TTLL6 (tubulin tyrosine ligase-like family, member 6), also known as TTL.6 or tubulin polyglutamylase TTLL6, is an 843 amino acid protein that preferentially modifies α -tubulin and plays a role in apoptosis. As a polyglutamylase, TTLL6 participates in side-chain elongation during polyglutamylation and localizes to both cytoplasm and cilium. TTLL6 is highly expressed in testis, with low expression in brain and stomach, and exists as two alternatively spliced isoforms. The gene encoding TTLL6 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1.

REFERENCES

1. Idriss, H.T. 2000. Phosphorylation of tubulin tyrosine ligase: a potential mechanism for regulation of α -tubulin tyrosination. *Cell Motil. Cytoskeleton* 46: 1-5.
2. Erck, C., et al. 2000. Tubulin-tyrosine ligase, a long-lasting enigma. *Neurochem. Res.* 25: 5-10.
3. Piura, B., et al. 2001. Three primary malignancies related to BRCA mutation successively occurring in a BRCA1 185delAG mutation carrier. *Eur. J. Obstet. Gynecol. Reprod. Biol.* 97: 241-244.
4. Minamoto, T., et al. 2001. Distinct pattern of p53 phosphorylation in human tumors. *Oncogene* 20: 3341-3347.
5. Janke, C., et al. 2005. Tubulin polyglutamylase enzymes are members of the TTL domain protein family. *Science* 308: 1758-1762.
6. Chen, X.H., et al. 2006. The testis-specific apoptosis related gene TTL.6 underwent adaptive evolution in the lineage leading to humans. *Gene* 370: 58-63.
7. Online Mendelian Inheritance in Man, OMIM[™]. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 610849. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
8. Pathak, N., et al. 2011. Tubulin tyrosine ligase like genes TTLL3 and TTLL6 maintain zebrafish cilia structure and motility. *J. Biol. Chem.* 286: 11685-11695.

CHROMOSOMAL LOCATION

Genetic locus: TTLL6 (human) mapping to 17q21.32; Ttl6 (mouse) mapping to 11 D.

SOURCE

TTLL6 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TTLL6 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165829 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTLL6 (P-12) is recommended for detection of TTLL6 of mouse, rat and human 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 TTLL family members.

TTLL6 (P-12) is also recommended for detection of TTLL6 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for TTLL6 siRNA (h): sc-94117, TTLL6 siRNA (m): sc-154794, TTLL6 shRNA Plasmid (h): sc-94117-SH, TTLL6 shRNA Plasmid (m): sc-154794-SH, TTLL6 shRNA (h) Lentiviral Particles: sc-94117-V and TTLL6 shRNA (m) Lentiviral Particles: sc-154794-V.

Molecular Weight of TTLL6 isoforms: 96/65 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.

PROTOCOLS

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