

TTLL7 (E-12): sc-163492

BACKGROUND

TTLL7 (tubulin tyrosine ligase-like family, member 7), also known as testis development protein NYD-SP30 or tubulin polyglutamylase TTLL7, is an 887 amino acid protein that functions as a polyglutamylase that modifies β -Actin and plays an essential role in neurite growth. Localizing to the cytoplasm, cell projection and perikaryon, TTLL7 is a member of the tubulin—tyrosine ligase family and is expressed at highest levels in cerebellum, spinal cord, thalamus, hypothalamus and hippocampus. TTLL7 contains one TTL domain, exists as three alternatively spliced isoforms, and is encoded by a gene that maps to human chromosome 1p31.1. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes, comprises nearly 8% of the human genome and houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome.

REFERENCES

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2. Tayebi, N., et al. 2001. Gaucher disease and parkinsonism: a phenotypic and genotypic characterization. *Mol. Genet. Metab.* 73: 313-321.
3. Plasilova, M., et al. 2004. Exclusion of an extracolonic disease modifier locus on chromosome 1p33-36 in a large Swiss familial adenomatous polyposis kindred. *Eur. J. Hum. Genet.* 12: 365-371.
4. Ikegami, K., et al. 2006. TTLL7 is a mammalian β -tubulin polyglutamylase required for growth of MAP2-positive neurites. *J. Biol. Chem.* 281: 30707-30716.
5. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. *Neurobiol. Dis.* 31: 309-315.
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7. Balcárková, J., et al. 2009. Gain of chromosome arm 1q in patients in relapse and progression of multiple myeloma. *Cancer Genet. Cytogenet.* 192: 68-72.
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CHROMOSOMAL LOCATION

Genetic locus: TTLL7 (human) mapping to 1p31.1; Ttl7 (mouse) mapping to 3 H2.

SOURCE

TTLL7 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TTLL7 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-163492 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TTLL7 (E-12) is recommended for detection of TTLL7 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.

TTLL7 (E-12) is also recommended for detection of TTLL7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TTLL7 siRNA (h): sc-88086, TTLL7 siRNA (m): sc-154795, TTLL7 shRNA Plasmid (h): sc-88086-SH, TTLL7 shRNA Plasmid (m): sc-154795-SH, TTLL7 shRNA (h) Lentiviral Particles: sc-88086-V and TTLL7 shRNA (m) Lentiviral Particles: sc-154795-V.

Molecular Weight of TTLL7 isoforms: 103/78/92 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.