SANTA CRUZ BIOTECHNOLOGY, INC.

Ribosomal Protein L6 (E-14): sc-68135

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mammalian ribosomal proteins are encoded by multigene families that consist of processed pseudogenes and one functional intron-containing gene within their coding regions. Ribosomal Protein L6, also known as RPL6, TAXREB107 or TXREB1, is a 288 amino acid component of the large ribosomal 60S subunit. Localized to the cytoplasm, Ribosomal Protein L6 binds specifically to domain C of the tax-responsive element (FOXN2) of human T cell leukemia virus type 1, thereby regulating tax-mediated transcriptional activation. Ribosomal Protein L6 is upregulated in multidrug resistant (MDR) gastric cancer cells and is implicated in Noonan syndrome, a congenital genetic condition characterized by impaired blood clotting, short stature and indentation of the chest. Two isoforms exist due to alternative splicing events.

REFERENCES

1. Golden, B.L., et al. 1993. Ribosomal Protein L6: structural evidence of gene duplication from a primitive RNA binding protein. EMBO J. 12: 4901-4908.
2. Davies, C., et al 1998. Ribosomal Proteins S5 and L6: high-resolution crystal structures and roles in protein synthesis and antibiotic resistance. J. Mol. Biol. 279: 873-888.
3. Shen, B., et al. 1998. Intracellular association of FGF-2 with the Ribosomal Protein L6/TAXREB107. Biochem. Biophys. Res. Commun. 252: 524-528.
4. Kenmochi, N., et al. 2000. The human Ribosomal Protein L6 gene in a critical region for Noonan syndrome. J. Hum. Genet. 45: 290-293.
5. Jäkel, S., et al. 2002. Importins fulfil a dual function as nuclear import receptors and cytoplasmic chaperones for exposed basic domains. EMBO J. 21: 377-386.
6. Wang, J., et al. 2002. Cloning of mouse genomic Ribosomal Protein L6 gene and analysis of its promoter. Biochim. Biophys. Acta 1576: 219-224.

CHROMOSOMAL LOCATION

Genetic locus: RPL6 (human) mapping to 12q24.13; Rpl6 (mouse) mapping to 5 F.

SOURCE

Ribosomal Protein L6 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ribosomal Protein L6 of human 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-68135 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Ribosomal Protein L6 (E-14) is recommended for detection of Ribosomal Protein L6 of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Ribosomal Protein L6 (E-14) is also recommended for detection of Ribosomal Protein L6 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Ribosomal Protein L6 siRNA (h): sc-40909, Ribosomal Protein L6 siRNA (m): sc-40910, Ribosomal Protein L6 shRNA Plasmid (h): sc-40909-SH, Ribosomal Protein L6 shRNA Plasmid (m): sc-40910-SH, Ribosomal Protein L6 shRNA (h) Lentiviral Particles: sc-40909-V and Ribosomal Protein L6 shRNA (m) Lentiviral Particles: sc-40910-V.

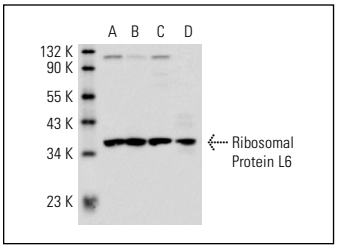
Molecular Weight of Ribosomal Protein L6: 33 kDa.

Positive Controls: SW480 cell lysate: sc-2219, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

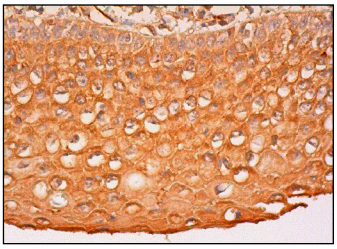
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Ribosomal Protein L6 (E-14): sc-68135. Western blot analysis of Ribosomal Protein L6 expression in Jurkat (**A**), Hep G2 (**B**), HeLa (**C**) and SW480 (**D**) whole cell lysates.



Ribosomal Protein L6 (E-14): sc-68135. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic and nuclear staining of squamous epithelial cells.

RESEARCH USE

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