

Ribosomal Protein L32 (K-12): sc-104012

BACKGROUND

Ribosomes, the organelles that catalyze protein synthesis, are composed of a small subunit (40S) and a large subunit (60S) that consist of over 80 distinct ribosomal proteins. Mammalian ribosomal proteins are encoded by multigene families that contain processed pseudogenes and one functional intron-containing gene within their coding regions. Ribosomal Protein L32, also known as RPL32 or PP9932, is a 132 amino acid protein that localizes to the cytoplasm and functions as a component of the 60S subunit, playing a role in protein translation. RPL32 belongs to the ribosomal protein L32E family of ribosomal proteins and is regulated by GABP. Like most ribosomal proteins, Ribosomal Protein L32 exists as multiple processed pseudogenes that are scattered throughout the genome.

REFERENCES

1. Genuario, R.R., Kelley, D.E. and Perry, R.P. 1993. Comparative utilization of transcription factor GABP by the promoters of ribosomal protein genes RPL30 and RPL32. *Gene Expr.* 3: 279-288.
2. Curci, D., Glibeti, M., Larson, D.E. and Sells, B.H. 1997. GA-binding protein is involved in altered expression of ribosomal protein L32 gene. *J. Cell. Biochem.* 65: 287-307.
3. Orlov, S.V., Kuteikin, K.B., Dizhe, E.B., Kuryshv, V.Y., Shpakovich, V.M. and Perevozchikov, A.P. 1999. DNA-protein interactions between mammalian nuclear proteins and a GCC-element included in a composite *cis*-acting element of mouse ribosomal protein L32 promoter. *Biochemistry Mosc.* 64: 207-212.
4. Sienna, N., Larson, D.E. and Sells, B.H. 2000. Dexamethasone stimulates ribosomal protein L32 gene transcription in rat myoblasts. *Mol. Cell. Endocrinol.* 167: 127-137.
5. Kleene, K.C., Cataldo, L., Mastrangelo, M.A. and Tagne, J.B. 2003. Alternative patterns of transcription and translation of the ribosomal protein L32 mRNA in somatic and spermatogenic cells in mice. *Exp. Cell Res.* 291: 101-110.
6. Orlov, S.V., Kute kin-Tepliakov, K.B., Grishin, A.V., Dizhe, E.B., Prokhorchuk, E.B. and Perevozchikov, A.P. 2006. Transcription factor ZF5 regulates expression of mammalian gene containing GCC-triplet repeats in 5'-regulatory region in human hepatoma Hep G2 cells. *Tsitologiya* 48: 246-252.
7. Ueda, M., Fujimoto, M., Arimura, S., Murata, J., Tsutsumi, N. and Kadowaki, K. 2007. Loss of the RPL32 gene from the chloroplast genome and subsequent acquisition of a preexisting transit peptide within the nuclear gene in *Populus*. *Gene* 402: 51-56.
8. Kriegova, E., Arakelyan, A., Fillerova, R., Zatloukal, J., Mrazek, F., Navratilova, Z., Kolek, V., du Bois, R.M. and Petrek, M. 2008. PSMB2 and RPL32 are suitable denominators to normalize gene expression profiles in bronchoalveolar cells. *BMC Mol. Biol.* 9: 69.
9. Ahn, K., Huh, J.W., Park, S.J., Kim, D.S., Ha, H.S., Kim, Y.J., Lee, J.R., Chang, K.T. and Kim, H.S. 2008. Selection of internal reference genes for SYBR green qRT-PCR studies of rhesus monkey (*Macaca mulatta*) tissues. *BMC Mol. Biol.* 9: 78.

CHROMOSOMAL LOCATION

Genetic locus: RPL32 (human) mapping to 3p25.1.

SOURCE

Ribosomal Protein L32 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ribosomal Protein L32 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-104012 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Ribosomal Protein L32 (K-12) is recommended for detection of Ribosomal Protein L32 and hCG_1644323 of 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 RPL family members.

Suitable for use as control antibody for Ribosomal Protein L32 siRNA (h): sc-78378, Ribosomal Protein L32 shRNA Plasmid (h): sc-78378-SH and Ribosomal Protein L32 shRNA (h) Lentiviral Particles: sc-78378-V.

Molecular Weight of Ribosomal Protein L32: 16 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.

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.

PROTOCOLS

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