

# Ribosomal Protein L35A (G-13): sc-103169

## 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 L35A, whose alternative names include 60S Ribosomal Protein L35A, cell growth-inhibiting gene 33 protein, RPL35A, DBA5 or GIG33, is a 110 amino acid protein which belongs to the Ribosomal Protein L35Ae family. Ribosomal Protein L35A localizes to cytoplasm and is required for normal cell proliferation and survival. Biogenesis of the 60S subunit and maturation of 28S and 5.8S rRNAs is dependent on Ribosomal Protein L35A, and defects in the Ribosomal Protein L35A gene is the cause of Diamond-Blackfan anemia type 5 (DBA5). Originally believed to be mapped to chromosome 18, Ribosomal Protein L35A has been confirmed to be located at 3q29 of human origin.

## REFERENCES

1. Feo, S., et al. 1992. The mapping of seven intron-containing ribosomal protein genes shows they are unlinked in the human genome. *Genomics* 13: 201-207.
2. Colombo, P., et al. 1996. The human L35A ribosomal protein (RPL35A) gene is located at chromosome band 3q29-qter. *Genomics* 32: 148-150.
3. Lopez, C.D., et al. 2002. Inhibition of cell death by Ribosomal Protein L35A. *Cancer Lett.* 180: 195-202.
4. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 180468. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Mazumder, B., et al. 2003. Regulated release of L13A from the 60S ribosomal subunit as a mechanism of transcript-specific translational control. *Cell* 115: 187-198.
6. Farrar, J.E., et al. 2008. Abnormalities of the large ribosomal subunit protein, Rpl35a, in Diamond-Blackfan anemia. *Blood* 112: 1582-1592.

## CHROMOSOMAL LOCATION

Genetic locus: RPL35A (human) mapping to 3q29; Rpl35a (mouse) mapping to 16 B3.

## SOURCE

Ribosomal Protein L35A (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Ribosomal Protein L35A 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-103169 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Ribosomal Protein L35A (G-13) is recommended for detection of Ribosomal Protein L35A 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other RPL family members.

Ribosomal Protein L35A (G-13) is also recommended for detection of Ribosomal Protein L35A in additional species, including equine.

Suitable for use as control antibody for Ribosomal Protein L35A siRNA (h): sc-78417, Ribosomal Protein L35A shRNA Plasmid (h): sc-78417-SH and Ribosomal Protein L35A shRNA (h) Lentiviral Particles: sc-78417-V.

Molecular Weight (predicted) of Ribosomal Protein L35A: 13 kDa.

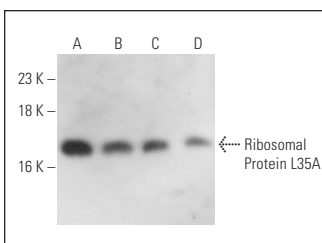
Molecular Weight (observed) of Ribosomal Protein L35A: 18 kDa.

Positive Controls: TF-1 cell lysate: sc-2412, PC-3 cell lysate: sc-2220 or MIA PaCa-2 cell lysate: sc-2285.

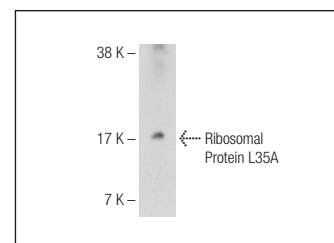
## RECOMMENDED SECONDARY REAGENTS

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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



Ribosomal Protein L35A (G-13): sc-103169. Western blot analysis of Ribosomal Protein L35A expression in HeLa (A), LADMAC (B), MIA PaCa-2 (C) and PC-3 (D) whole cell lysates.



Ribosomal Protein L35A (G-13): sc-103169. Western blot analysis of Ribosomal Protein L35A expression in TF-1 whole cell lysate.

## 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.