

# Ribosomal Protein L7 (F-18): sc-103151

## 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 multi-gene families that contain processed pseudogenes and one functional intron-containing gene within their coding regions. Ribosomal Protein L7A, also known as RPL7A or SURF-3, is a 266 amino acid protein that interacts with select nuclear hormone receptors, such as TR (thyroid hormone receptor), and, via this interaction, is able to inhibit receptor function. The gene encoding Ribosomal Protein L7A maps to chromosome 9 and is subject to a recombination event which activates the Trk (tyrosine kinase receptor) oncogene and may play a role in oncogenesis. Like most ribosomal proteins, Ribosomal Protein L7A exists as multiple processed pseudogenes that are scattered throughout the genome.

## REFERENCES

1. Giallongo, A., et al. 1989. Ribosomal Protein L7A is encoded by a gene (SURF-3) within the tightly clustered mouse surfeit locus. *Mol. Cell. Biol.* 9: 224-231.
2. Yon, J., et al. 1993. The organization and conservation of the human surfeit gene cluster and its localization telomeric to the c-Abl and can proto-oncogenes at chromosome band 9q34.1. *Hum. Mol. Genet.* 2: 237-240.
3. Mor, O., et al. 1996. A high frequency polymorphism in the candidate region for tuberous sclerosis 1 (TSC1) at 9q34. *Ann. Hum. Genet.* 60: 259-260.
4. Kenmochi, N., et al. 1998. A map of 75 human ribosomal protein genes. *Genome Res.* 8: 509-523.
5. Zhu, Y., et al. 2001. Modulation of expression of Ribosomal Protein L7A (RPL7A) by ethanol in human breast cancer cells. *Breast Cancer Res. Treat.* 69: 29-38.
6. Angiolillo, A., et al. 2002. The human homologue of the mouse Surf5 gene encodes multiple alternatively spliced transcripts. *Gene* 284: 169-178.

## CHROMOSOMAL LOCATION

Genetic locus: RPL7 (human) mapping to 8q21.11; Rpl7 (mouse) mapping to 1 A3.

## SOURCE

Ribosomal Protein L7 (F-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Ribosomal Protein L7 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.

## RESEARCH USE

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

## 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-103151 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Ribosomal Protein L7 (F-18) is recommended for detection of Ribosomal Protein L7 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 Ribosomal Protein L family members.

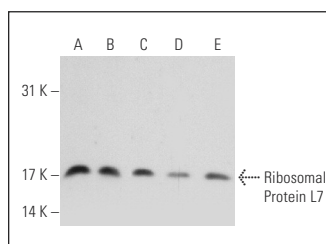
Ribosomal Protein L7 (F-18) is also recommended for detection of Ribosomal Protein L7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Ribosomal Protein L7 siRNA (h): sc-77708, Ribosomal Protein L7 siRNA (m): sc-152925, Ribosomal Protein L7 shRNA Plasmid (h): sc-77708-SH, Ribosomal Protein L7 shRNA Plasmid (m): sc-152925-SH, Ribosomal Protein L7 shRNA (h) Lentiviral Particles: sc-77708-V and Ribosomal Protein L7 shRNA (m) Lentiviral Particles: sc-152925-V.

Molecular Weight of Ribosomal Protein L7: 29 kDa.

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

## DATA



Ribosomal Protein L7 (F-18): sc-103151. Western blot analysis of Ribosomal Protein L7 expression in HeLa (A), SW480 (B), Jurkat (C), Ramos (D) and Raji (E) whole cell lysates.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.