

GNL1 (Q-15): sc-55833

BACKGROUND

GNL1 (guanine nucleotide-binding protein-like 1) is a nuclear protein that likely acts as a regulator of the histocompatibility cluster. GNL1 and MMR1, the murine homolog, are localized within or close to the MHC class I region and belong to the MMR1/HSR1 GTP-binding protein family. GTPases, such as GNL1, from the MMR1/HSR1 GTP-binding protein subfamily are circularly rearranged G-motifs that play a critical role in maintaining normal cell growth. Deletion of these genes results in severe growth defects with a marked reduction in mature rRNA species and a concomitant accumulation of the 35S pre-rRNA transcript. Deletion also causes the ribosomal protein RPL25A to fail exportation from the nucleolus. Deletion of any of the G domain motifs will result in a null phenotype and nuclear/nucleolar localization that lacks the nucleolar export of preribosomes and is accompanied by a distortion of the nucleolar structure. Upon DNA damage GNL1 is phosphorylated by a kinase, possibly Atm or ATR.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GNL1 (human) mapping to 6p21.33; Gnal1 (mouse) mapping to 17 B1.

SOURCE

GNL1 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GNL1 of mouse 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-55833 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GNL1 (Q-15) is recommended for detection of GNL1 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).

GNL1 (Q-15) is also recommended for detection of GNL1 in additional species, including equine, canine, bovine and porcine.

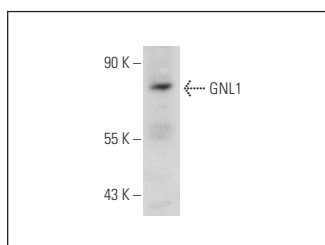
Suitable for use as control antibody for GNL1 siRNA (h): sc-62389, GNL1 siRNA (m): sc-62390, GNL1 shRNA Plasmid (h): sc-62389-SH, GNL1 shRNA Plasmid (m): sc-62390-SH, GNL1 shRNA (h) Lentiviral Particles: sc-62389-V and GNL1 shRNA (m) Lentiviral Particles: sc-62390-V.

Molecular Weight (predicted) of GNL1: 69 kDa.

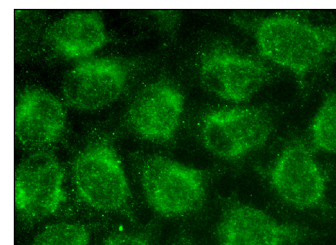
Molecular Weight (observed) of GNL1: 90 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

DATA



GNL1 (Q-15): sc-55833. Western blot analysis of GNL1 expression in NIH/3T3 whole cell lysate.



GNL1 (Q-15): sc-55833. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

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.