

LYAR (N-12): sc-160503

BACKGROUND

LYAR (Ly1 antibody reactive), also known as ZLYAR or cell growth-regulating nucleolar protein, is a 379 amino acid nucleolar protein containing two C2HC-type zinc fingers. Expressed at high levels in immature spermatocytes, early embryos and in fetal liver and thymus with low expression in kidney and spleen, LYAR may function as a novel nucleolar oncoprotein to regulate cell growth. It is suggested that LYAR participates in regulating the stability of C23, a protein that is critical for maintaining the self-renewal and differentiation of embryonic stem cells (ESCs). C23 is a eukaryotic nucleolar phosphoprotein that influences synthesis and maturation of ribosomes. LYAR forms a complex with C23, thereby preventing self-cleavage and maintaining steady levels of C23 in undifferentiated ESCs. Downregulation of LYAR decreases C23 stability in ESCs, which in turn negatively affects growth and increases the rate of apoptosis of these cells.

REFERENCES

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- Su, L., et al. 1993. LYAR, a novel nucleolar protein with zinc finger DNA-binding motifs, is involved in cell growth regulation. *Genes Dev.* 7: 735-748.
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CHROMOSOMAL LOCATION

Genetic locus: LYAR (human) mapping to 4p16.3; Lyar (mouse) mapping to 5 B3.

SOURCE

LYAR (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LYAR 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.

PROTOCOLS

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

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-160503 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LYAR (N-12) is recommended for detection of LYAR of mouse, rat and 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).

LYAR (N-12) is also recommended for detection of LYAR in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for LYAR siRNA (h): sc-89300, LYAR siRNA (m): sc-149169, LYAR shRNA Plasmid (h): sc-89300-SH, LYAR shRNA Plasmid (m): sc-149169-SH, LYAR shRNA (h) Lentiviral Particles: sc-89300-V and LYAR shRNA (m) Lentiviral Particles: sc-149169-V.

Molecular Weight of LYAR: 45 kDa.

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.

RESEARCH USE

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