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LYAR Rabbit pAb

Catalog # AP99469

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q9NX58
Other Accession	Q9NX58
Predicted	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43634
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LYAR
Epitope Specificity	1-100/379
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 2 C2HC-type zinc fingers.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	LYAR 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.

Additional Information

Gene ID	55646
Other Names	ZC2HC2; ZLYAR; MLZ-264; LYAR_HUMAN; LYAR; LYAR_MOUSE; Ly1 antibody-reactive protein; Protein expressed in male leptotene and zygotene spermatocytes 264 (MLZ-264); LYAR_RAT; Ly1 antibody reactive; Ly1 antibody reactive homolog (mouse); cell growth-regulating nucleolar protein
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name	LYAR
Function	Plays a role in the maintenance of the appropriate processing of 47S/45S pre-rRNA to 32S/30S pre-rRNAs and their subsequent processing to produce 18S and 28S rRNAs (PubMed:24495227). Also acts at the level of transcription regulation. Along with PRMT5, binds the gamma-globin (HBG1/HBG2) promoter and represses its expression (PubMed:25092918). In neuroblastoma cells, may also repress the expression of oxidative stress genes, including CHAC1, HMOX1, SLC7A11, ULBP1 and SNORD41 that encodes a small nucleolar RNA (PubMed:28686580). Preferentially binds to a DNA motif containing 5'-GGTTAT-3' (PubMed:25092918). Negatively regulates the antiviral innate immune response by targeting IRF3 and impairing its DNA-binding activity (PubMed:31413131). In addition, inhibits NF-kappa-B-mediated expression of pro-inflammatory cytokines (PubMed:31413131). Stimulates phagocytosis of photoreceptor outer segments by retinal pigment epithelial cells (By similarity). Prevents nucleolin/NCL self-cleavage, maintaining a normal steady-state level of NCL protein in undifferentiated embryonic stem cells (ESCs), which in turn is essential for ESC self-renewal (By similarity).
Cellular Location	Nucleus. Nucleus, nucleolus. Cytoplasm. Cell projection, cilium, photoreceptor outer segment {ECO:0000250|UniProtKB:Q08288}. Note=Component of pre-ribosomal particles, including pre-40S, pre-60S and pre-90S (PubMed:24495227). Associated with cytoplasmic ribosomes, but not polysomes, as a component of the 60S subunit (PubMed:24990247). In the retina, predominantly expressed in photoreceptor outer segments (By similarity). In the nucleolus, colocalizes with nucleolin/NCL, therefore may reside in the dense fibrillar component (DFC) (By similarity). {ECO:0000250|UniProtKB:Q08288, ECO:0000269|PubMed:24495227, ECO:0000269|PubMed:24990247}
Tissue Location	Predominantly expressed in testis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.