

PICT1 / GLTSCR2 Antibody (internal region)
Peptide-affinity purified goat antibody
Catalog # AF2423a

Specification

PICT1 / GLTSCR2 Antibody (internal region) - Product Information

Application	E
Primary Accession	O9NZM5
Other Accession	NP_056525.2 , 29997 , 68077 (mouse) , 292624 (rat)
Predicted Host	Human, Mouse, Rat, Dog
Clonality	Goat
Concentration	Polyclonal
Isotype	0.5 mg/ml
Calculated MW	IgG
	54389

PICT1 / GLTSCR2 Antibody (internal region) - Additional Information

Gene ID 29997

Other Names

Glioma tumor suppressor candidate region gene 2 protein, p60, GLTSCR2

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PICT1 / GLTSCR2 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

PICT1 / GLTSCR2 Antibody (internal region) - Protein Information

Name NOP53 ([HGNC:4333](#))

Function

Nucleolar protein which is involved in the integration of the 5S RNP into the ribosomal large subunit during ribosome biogenesis (PubMed: [24120868](http://www.uniprot.org/citations/24120868)). In ribosome biogenesis, may also play a role in rRNA transcription (PubMed: [27729611](http://www.uniprot.org/citations/27729611)). Also functions as a nucleolar sensor that regulates the activation of p53/TP53 in response to ribosome biogenesis perturbation, DNA damage and other stress conditions (PubMed: <a

<http://www.uniprot.org/citations/21741933> target="_blank">21741933, PubMed:24120868, PubMed:27829214). DNA damage or perturbation of ribosome biogenesis disrupt the interaction between NOP53 and RPL11 allowing RPL11 transport to the nucleoplasm where it can inhibit MDM2 and allow p53/TP53 activation (PubMed:24120868, PubMed:27829214). It may also positively regulate the function of p53/TP53 in cell cycle arrest and apoptosis through direct interaction, preventing its MDM2-dependent ubiquitin-mediated proteasomal degradation (PubMed:22522597). Originally identified as a tumor suppressor, it may also play a role in cell proliferation and apoptosis by positively regulating the stability of PTEN, thereby antagonizing the PI3K-AKT/PKB signaling pathway (PubMed:15355975, PubMed:16971513, PubMed:27729611). May also inhibit cell proliferation and increase apoptosis through its interaction with NF2 (PubMed:21167305). May negatively regulate NPM1 by regulating its nucleoplasmic localization, oligomerization and ubiquitin-mediated proteasomal degradation (PubMed:25818168). Thereby, may prevent NPM1 interaction with MYC and negatively regulate transcription mediated by the MYC-NPM1 complex (PubMed:25956029). May also regulate cellular aerobic respiration (PubMed:24556985). In the cellular response to viral infection, may play a role in the attenuation of interferon-beta through the inhibition of RIGI (PubMed:27824081).

Cellular Location

Nucleus, nucleolus. Nucleus, nucleoplasm. Note=In the nucleolus may be more specifically localized to the fibrillar center (PubMed:27729611). Mainly nucleolar it relocalizes to the nucleoplasm under specific conditions including ribosomal stress enabling it to interact and regulate nucleoplasmic proteins like p53/TP53 (PubMed:22522597, PubMed:24923447, PubMed:26903295, PubMed:27323397) Also detected in the cytosol (PubMed:24923447, PubMed:27824081)

Tissue Location

Expressed at high levels in heart and pancreas, moderate levels in placenta, liver, skeletal muscle, and kidney, and low levels in brain and lung.

PICT1 / GLTSCR2 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PICT1 / GLTSCR2 Antibody (internal region) - Images

PICT1 / GLTSCR2 Antibody (internal region) - Background

This antibody is expected to recognise a sequence corresponding to aa 38-51 of human PICT1 protein.

PICT1 / GLTSCR2 Antibody (internal region) - References

Regulation of PTEN phosphorylation and stability by a tumor suppressor candidate protein.
Okahara F, Ikawa H, Kanaho Y, Maehama T. J Biol Chem. 2004 Oct 29;279(44):45300-3. Epub 2004 Sep 07. PMID: 15355975