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PICT1 / GLTSCR2 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF2423a

Specification

PICT1 / GLTSCR2 Antibody (internal region) - Product Information

Application	**E**
Primary Accession	Q9NZM5
Other Accession	NP_056525.2, 29997, 68077 (mouse), 292624 (rat)
Predicted	**Human, Mouse, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**54389**

PICT1 / GLTSCR2 Antibody (internal region) - Additional Information

Gene ID 29997

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

Dilution
E~~N/A

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). In ribosome biogenesis, may also play a role in rRNA transcription (PubMed:<a

href="http://www.uniprot.org/citations/27729611" target="_blank">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: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 Cytomety
- Cell Culture

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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