

GLTSCR2 Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 62	Source/Isotype: Rabbit	UniProt ID: #Q9NZM5	Entrez-Gene Id: 29997
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

GLTSCR2 Antibody recognizes endogenous levels of total GLTSCR2 protein. .

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys410 of human GLTSCR2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Glioma tumor suppressor candidate region gene 2 protein (GLTSCR2), also known as protein interacting with carboxyl terminus-1 (PICT-1), displays tumor suppressor activity, in part, by interacting with the C-terminal region of PTEN and preventing its degradation. Disruption of this interaction upregulates activity of the PI3K/Akt signaling axis and promotes cell transformation (1,2). Further evidence to support the tumor suppressor role of GLTSCR2 lies in the finding that *GLTSCR2* is localized to the tumor suppressive region of chromosome 19q, which is subject to lesions in human brain tumors (3). Indeed, research studies have demonstrated that *GLTSCR2* harbors nonsense mutations and deletions in glioblastomas, which lead to a decrease in GLTSCR2 protein expression (4). GLTSCR2 has also been shown to exert tumor suppressor activity through its involvement in the nucleolar stress response. Research studies indicate that in response to ribosomal stress, GLTSCR2 translocates from the nucleolus to the nucleoplasm where it binds and stabilizes p53 tumor suppressor, which results in inhibition of cell cycle progression (5).

Background References

- Okahara, F. et al. (2004) *J Biol Chem* 279, 45300-3.
- Okahara, F. et al. (2006) *Mol Biol Cell* 17, 4888-95.
- Smith, J.S. et al. (2000) *Genomics* 64, 44-50.
- Kim, Y.J. et al. (2008) *J Pathol* 216, 218-24.
- Lee, S. et al. (2012) *Cell Death Differ* 19, 1613-22.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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