

RGS22 Antibody

Catalog # ASC11532

Product Information

Application	WB, IF, E
Primary Accession	Q8NE09
Other Accession	NP_056483 , 158534077
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	147163
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	RGS22 antibody can be used for detection of RGS22 by Western blot at 1 - 2 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	26166
Other Names	Regulator of G-protein signaling 22, RGS22, RGS22
Target/Specificity	RGS22; At least four isoforms of RGS22 are known to exist; this antibody will detect the three longest isoforms. RGS22 antibody is predicted to not cross-react with other RGS proteins
Reconstitution & Storage	RGS22 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	RGS22 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RGS22
Function	Inhibits signal transduction by increasing the GTPase activity of G protein alpha subunits thereby driving them into their inactive GDP-bound form.
Cellular Location	Cytoplasm. Nucleus. Note=Expressed in the cytoplasm of spermatogonia and spermatocytes. In spermatids, also expressed in the nucleus
Tissue Location	Testis-specific. Expressed in Leydig cells and spermatogenic cells from the spermatogonia to spermatid stages (at protein level).

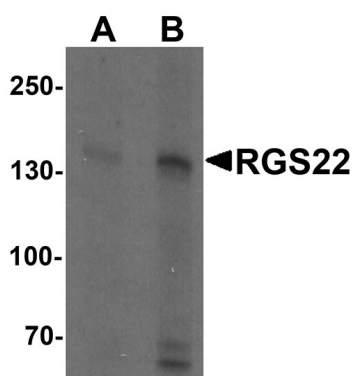
Background

RGS22 Antibody: Regulator of G-protein signaling (RGS) proteins contain an 120 amino acid conserved domain, termed the RGS domain, that acts as a GTPase-activating protein that acts to reduce the signal transmitted by the receptor-activated G-alpha subunit. RGS22 is a recently identified member of this family that localizes to the testis and can interact with guanine nucleotide binding proteins alpha 11, 12, and 13 (GNA11, GNA12, and GNA13). While RGS22 has been postulated to play a role in spermiogenesis in the testis, it is also expressed in several cancer cell lines with an epithelial origin and associated with cancer metastasis. Its overexpression in a highly metastatic cancer causes a decrease in cell migration and a reduction of the invasive potential of the cells, suggesting that RGS22 may be a potential prognostic biomarker for metastasis.

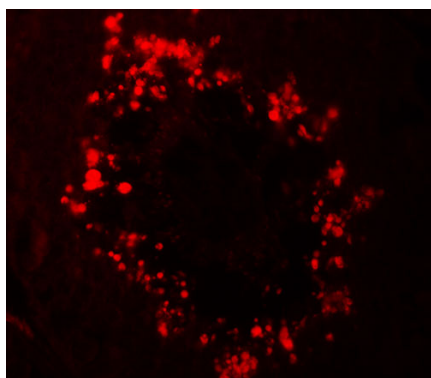
References

- De Vries L, Mousli M, Wurmser A, et al. GAIP, a protein that specifically interacts with the G protein G alpha i3, is a member of a protein family with a highly conserved core domain. *Proc. Natl. Acad. Sci. USA* 1995; 92:11916-20.
- Berman DM, Wilkie TM, and Gilman AG. GAIP and RGS4 are GTP-ase activating proteins for the Gi subfamily of G protein alpha subunits. *Cell* 1996; 86:445-52.
- Hu Y, Xing J, Chen L, et al. RGS22, a novel testis-specific regulator of G-protein signaling involved in human and mouse spermiogenesis along with GNA12/13 subunits. *Biol. Reprod.* 2008; 79:1021-9
- Hu Y, Xing J, Wang L, et al. RGS22, a novel cancer/testis antigen, inhibits epithelial cell invasion and metastasis. *Clin. Exp. Metastasis* 2011; 28:541-9.

Images



Western blot analysis of RGS22 in Jurkat cell lysate with RGS22 antibody at (A) 1 and (B) 2 $\mu\text{g/mL}$.



Immunofluorescence of RGS22 in human testis tissue with RGS22 antibody at 20 $\mu\text{g/mL}$.

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