10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GNA13 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17044c

Product Information

Application	WB, E
Primary Accession	Q14344
Other Accession	P27601, NP_006563.2
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36839
Calculated MW	44050
Antigen Region	184-212

Additional Information

Gene ID	10672
Other Names	Guanine nucleotide-binding protein subunit alpha-13, G alpha-13, G-protein subunit alpha-13, GNA13
Target/Specificity	This GNA13 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 184-212 amino acids from the Central region of human GNA13.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GNA13 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GNA13
Function	Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems

	(PubMed:15240885, PubMed:16705036, PubMed:16787920, PubMed:27084452). Activates effector molecule RhoA by binding and activating RhoGEFs (ARHGEF1/p115RhoGEF, ARHGEF11/PDZ-RhoGEF and ARHGEF12/LARG) (PubMed:12515866, PubMed:15240885). GNA13-dependent Rho signaling subsequently regulates transcription factor AP-1 (activating protein-1) (By similarity). Promotes tumor cell invasion and metastasis by activating RhoA/ROCK signaling pathway (PubMed:16705036, PubMed:16787920, PubMed:27084452). Inhibits CDH1-mediated cell adhesion in a process independent from Rho activation (PubMed:11976333). In lymphoid follicles, transmits P2RY8- and S1PR2-dependent signals that lead to inhibition of germinal center (GC) B cell growth and migration outside the GC niche.
Cellular Location	Cell membrane; Lipid-anchor. Melanosome. Cytoplasm. Nucleus Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065). Detected in the cytoplasm of Leydig cells and in the seminiferous epithelium, including differentiating cells from the spermatogonia to mature spermatozoa stages (PubMed:18703424). In round spermatids, also present in the nuclei (PubMed:18703424).
Tissue Location	Expressed in testis, including in Leydig cells and in the seminiferous epithelium, in differentiating cells from the spermatogonia to mature spermatozoa stages and round spermatids (at protein level). Expressed in 99.2% of spermatozoa from healthy individuals, but only in 28.6% of macrocephalic spermatozoa from infertile patients (at protein level).

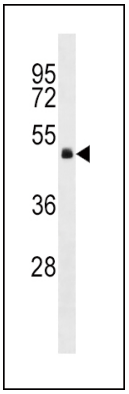
Background

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems.

References

Rose, J. Phd, et al. Mol. Med. (2010) In press :
Grzelinski, M., et al. Clin. Cancer Res. 16(5):1402-1415(2010)
Gong, H., et al. Science 327(5963):340-343(2010)
Saito, M., et al. Cell. Signal. 22(1):41-46(2010)
Chen, L., et al. J. Biol. Chem. 284(40):27409-27415(2009)

Images



GNA13 Antibody (Center) (Cat. #AP17044c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the GNA13 antibody detected the GNA13 protein (arrow).