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

GUCY2D Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11569c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q02846
Other Accession	NP_000171.1
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19346
Calculated MW	120059
Antigen Region	540-570

Additional Information

Gene ID	3000
Other Names	Retinal guanylyl cyclase 1, RETGC-1, Guanylate cyclase 2D, retinal, Rod outer segment membrane guanylate cyclase, ROS-GC, GUCY2D, CORD6, GUC1A4, GUC2D, RETGC, RETGC1
Target/Specificity	This GUCY2D antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 540-570 amino acids from the Central region of human GUCY2D.
Dilution	WB~~1:2000 IHC-P~~1:100~500 FC~~1:25 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	GUCY2D Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GUCY2D
Function	Catalyzes the synthesis of cyclic GMP (cGMP) in rods and cones of

	photoreceptors. Plays an essential role in phototransduction, by mediating cGMP replenishment (PubMed:15123990, PubMed:21928830, PubMed:26100624, PubMed:30319355, PubMed:9600905). May also participate in the trafficking of membrane-asociated proteins to the photoreceptor outer segment membrane (By similarity).
Cellular Location	Photoreceptor outer segment membrane; Single-pass type I membrane protein. Endoplasmic reticulum membrane; Single-pass type I membrane protein
Tissue Location	Retina..

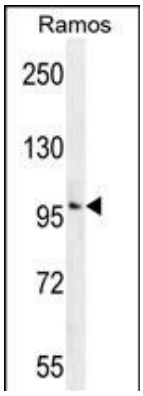
Background

This gene encodes a retina-specific guanylate cyclase, which is a member of the membrane guanylyl cyclase family. Like other membrane guanylyl cyclases, this enzyme has a hydrophobic amino-terminal signal sequence followed by a large extracellular domain, a single membrane spanning domain, a kinase homology domain, and a guanylyl cyclase catalytic domain. In contrast to other membrane guanylyl cyclases, this enzyme is not activated by natriuretic peptides. Mutations in this gene result in Leber congenital amaurosis and cone-rod dystrophy-6 diseases. [provided by RefSeq].

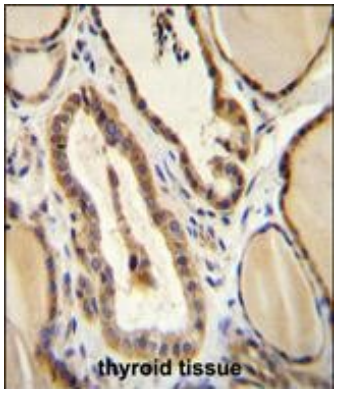
References

Silva, L.K., et al. Eur. J. Hum. Genet. 18(11):1221-1227(2010)
Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010)
Joslyn, G., et al. Alcohol. Clin. Exp. Res. 34(5):800-812(2010)
Pasadhika, S., et al. Invest. Ophthalmol. Vis. Sci. 51(5):2608-2614(2010)
Sundaresan, P., et al. Mol. Vis. 15, 1781-1787 (2009) :

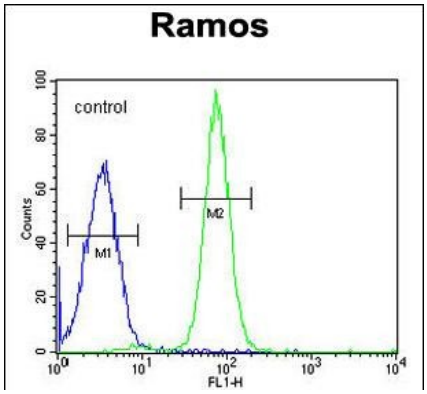
Images



GUCY2D Antibody (Center) (Cat. #AP11569c) western blot analysis in Ramos cell line lysates (35ug/lane).This demonstrates the GUCY2D antibody detected the GUCY2D protein (arrow).



GUCY2D Antibody (Center) (Cat. #AP11569c)immunohistochemistry analysis in formalin fixed and paraffin embedded human thyroid tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of GUCY2D Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



GUCY2D Antibody (Center) (Cat. #AP11569c) flow cytometric analysis of Ramos cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.