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GNAT1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9783B

Specification

GNAT1 Antibody (C-term) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	P11488
Other Accession	P38407, P20612, P04695
Reactivity	**Human**
Predicted	**Bovine, Mouse, Xenopus**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**40041**
Antigen Region	**290-318**

GNAT1 Antibody (C-term) - Additional Information

Gene ID 2779

Other Names
Guanine nucleotide-binding protein G(t) subunit alpha-1, Transducin alpha-1 chain, GNAT1, GNATR

Target/Specificity
This GNAT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 290-318 amino acids from the C-terminal region of human GNAT1.

Dilution
FC~~1:10~50
IHC-P~~1:50~100
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
GNAT1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GNAT1 Antibody (C-term) - Protein Information

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Name GNAT1

Synonyms GNATR

Function Functions as a signal transducer for the rod photoreceptor RHO. Required for normal RHO-mediated light perception by the retina (PubMed:22190596). Guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs), such as the photoreceptor RHO. The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP- bound state and an inactive, GDP-bound state. Activated RHO promotes GDP release and GTP binding. Signaling is mediated via downstream effector proteins, such as cGMP-phosphodiesterase (By similarity).

Cellular Location
Cell projection, cilium, photoreceptor outer segment {ECO:0000250|UniProtKB:P04695}. Membrane {ECO:0000250|UniProtKB:P04695}; Peripheral membrane protein {ECO:0000250|UniProtKB:P04695}. Photoreceptor inner segment {ECO:0000250|UniProtKB:P20612}. Note=Localizes mainly in the outer segment in the dark-adapted state, whereas is translocated to the inner part of the photoreceptors in the light-adapted state. During dark- adapted conditions, in the presence of UNC119 mislocalizes from the outer segment to the inner part of rod photoreceptors which leads to decreased photoreceptor damage caused by light {ECO:0000250|UniProtKB:P20612}

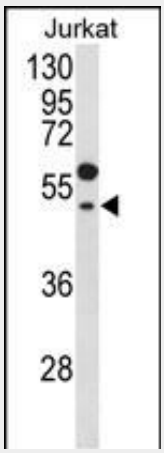
Tissue Location
Rod photoreceptor cells (PubMed:1614872). Predominantly expressed in the retina followed by the ciliary body, iris and retinal pigment epithelium (PubMed:22190596)

GNAT1 Antibody (C-term) - 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

GNAT1 Antibody (C-term) - Images



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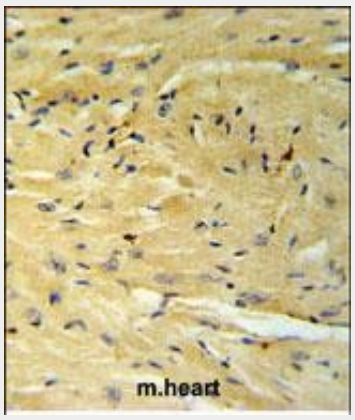
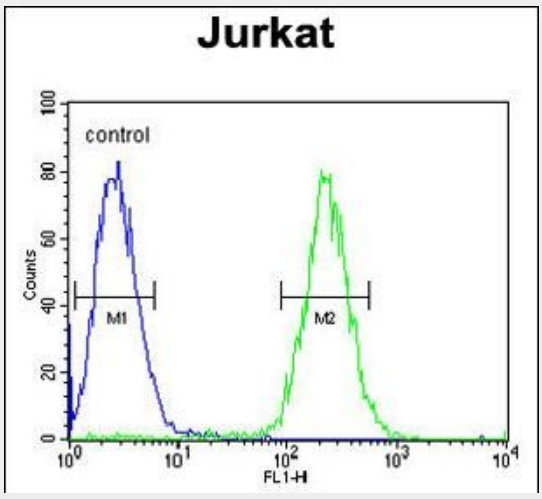
Western blot analysis of GNAT1 Antibody (C-term) (Cat. #AP9783b) in Jurkat cell line lysates (35ug/lane). GNAT1 (arrow) was detected using the purified Pab.



GNAT1 Antibody (C-term) (Cat. #AP9783b) IHC analysis in formalin fixed and paraffin embedded moouse heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the GNAT1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



GNAT1 Antibody (C-term) (Cat. #AP9783b) flow cytometric analysis of Jurkat cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

GNAT1 Antibody (C-term) - Background

Transducin is a 3-subunit guanine nucleotide-binding protein (G protein) which stimulates the coupling of rhodopsin and cGMP-phoshodiesterase during visual impulses. The transducin alpha subunits in rods and cones are encoded by separate genes. This gene encodes the alpha subunit in rods. This gene is also expressed in other cells, and has been implicated in bitter taste transduction in rat taste cells.

GNAT1 Antibody (C-term) - References

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Szabo, V., et al. Hum. Mutat. 28(7):741-742(2007)
Yi, H.M., et al. Ai Zheng 26(1):9-14(2007)
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