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Anti-GNAT1 Antibody

Rabbit polyclonal antibody to GNAT1
Catalog # AP60296

Product Information

Application	WB, IHC
Primary Accession	P11488
Other Accession	P20612
Reactivity	Human, Mouse, Rat, Bovine, Drosophila
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40041

Additional Information

Gene ID	2779
Other Names	GNATR; Guanine nucleotide-binding protein G(t) subunit alpha-1; Transducin alpha-1 chain
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human GNAT1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200) IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

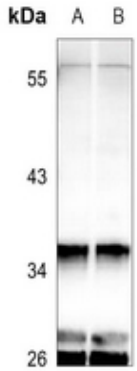
Name	GNAT1
Synonyms	GNATR
Function	Functions as a signal transducer for the rod photoreceptor RHO. Required for normal RHO-mediated light perception by the retina (PubMed:22190596). Guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs), 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)

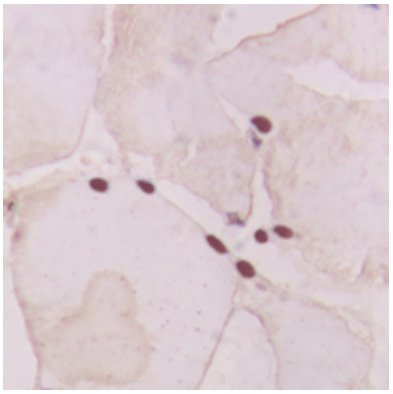
Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human GNAT1. The exact sequence is proprietary.

Images



Western blot analysis of GNAT1 expression in mouse eyes (A), rat eyes (B) whole cell lysates.



Immunohistochemical analysis of GNAT1 staining in human heart formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.