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GNB1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5036a

Product Information

Application	FC, WB, E
Primary Accession	P62873
Other Accession	P79959, P54311, P62874, Q6PH57, Q6TMK6, P62871
Reactivity	Human
Predicted	Bovine, Hamster, Zebrafish, Mouse, Rat, Xenopus, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB26119
Calculated MW	37377
Antigen Region	1-30

Additional Information

Gene ID	2782
Other Names	Guanine nucleotide-binding protein G(I)/G(S)/G(T) subunit beta-1, Transducin beta chain 1, GNB1
Target/Specificity	This GNB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human GNB1.
Dilution	FC~~1:10~50 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	GNB1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GNB1 (HGNC:4396)
Function	Guanine nucleotide-binding proteins (G proteins) are involved as a modulator or transducer in various transmembrane signaling systems

(PubMed:29925951, PubMed:33762731, PubMed:34239069, PubMed:35610220, PubMed:35714614, PubMed:35835867, PubMed:36087581, PubMed:36989299, PubMed:37327704, PubMed:37935376, PubMed:37935377, PubMed:37963465, PubMed:37991948, PubMed:38168118, PubMed:38552625, PubMed:39103320). The beta and gamma chains are required for the GTPase activity, for replacement of GDP by GTP, and for G protein-effector interaction (PubMed:29925951, PubMed:33762731, PubMed:34239069, PubMed:35610220, PubMed:35714614, PubMed:35835867, PubMed:36087581, PubMed:36989299, PubMed:37327704, PubMed:37935376, PubMed:37935377, PubMed:37963465, PubMed:38168118, PubMed:38552625, PubMed:39103320). Involved in bitter and sweet taste transduction as well as in umami (monosodium glutamate, monopotassium glutamate, and inosine monophosphate) taste transduction (PubMed:40339580, PubMed:38600377, PubMed:38776963).

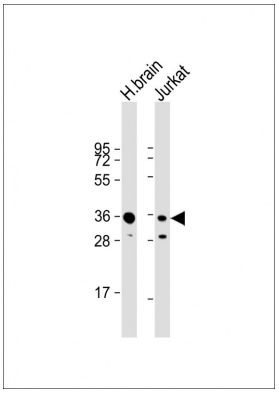
Background

GNB1 integrate signals between receptors and effector proteins, are composed of an alpha, a beta, and a gamma subunit. These subunits are encoded by families of related genes. This gene encodes a beta subunit. Beta subunits are important regulators of alpha subunits, as well as of certain signal transduction receptors and effectors. This protein uses alternative polyadenylation signals.

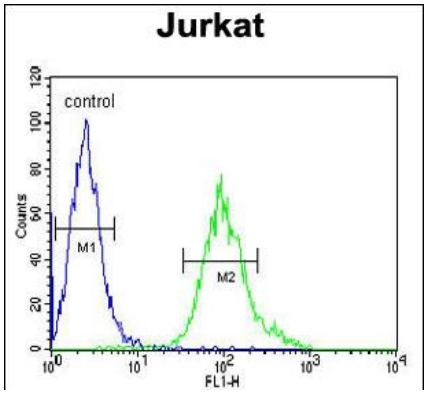
References

Ahmed, S.M., et al. J. Biol. Chem. 285(9):6538-6551(2010)
Gutman, O., et al. J. Biol. Chem. 285(6):3905-3915(2010)
Knezevic, N., et al. J. Exp. Med. 206(12):2761-2777(2009)

Images



All lanes : Anti-GNB1 Antibody (N-term) at 1:1000 dilution Lane 1: human brain lysate Lane 2: Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



GNB1 Antibody (N-term) (Cat. #AP5036a) 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.

Citations

- Ciliary genes arl13b, ahi1 and cc2d2a differentially modify expression of visual acuity phenotypes but do not enhance retinal degeneration due to mutation of cep290 in zebrafish.
- Knockout of RP2 decreases GRK1 and rod transducin subunits and leads to photoreceptor degeneration in zebrafish.
- Pathogenic Mutations in Retinitis Pigmentosa 2 Predominantly Result in Loss of RP2 Protein Stability in Human and Zebrafish.

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