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GNAO1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9134b

Product Information

Application	WB, FC, E
Primary Accession	P09471
Other Accession	P08239
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	40051
Antigen Region	291-320

Additional Information

Gene ID	2775
Other Names	Guanine nucleotide-binding protein G(o) subunit alpha, GNAO1
Target/Specificity	This GNAO1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 291-320 amino acids from the C-terminal region of human GNAO1.
Dilution	WB~~1:2000 FC~~1:10~50 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	GNAO1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GNAO1
Function	Guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs) in numerous signaling cascades, such as regulation of postsynaptic neurotransmitter release (PubMed:29925951, PubMed:33408414, PubMed:39103320). The alpha chain

contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state (PubMed:39103320). Signaling by an activated GPCR promotes GDP release and GTP binding (PubMed:39103320). The alpha subunit has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal (By similarity). Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins (By similarity). Signaling is mediated via effector proteins, such as adenylate cyclase: GNAO1 acts by inhibiting the activity of adenylate cyclases, leading to decreased intracellular cAMP levels (By similarity). Plays a key role in postsynaptic inhibition of neurotransmitter release (By similarity).

Cellular Location

Cell membrane; Peripheral membrane protein; Cytoplasmic side. Note=Associated to the plasma membrane via lipid-anchor.

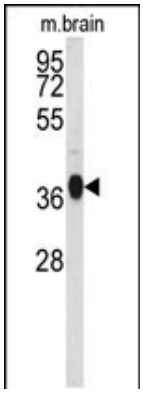
Background

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems. The G(o) protein function is not clear.

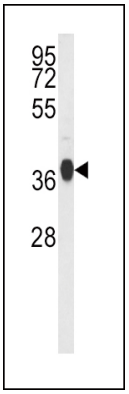
References

Yi,F., et.al., J. Biol. Chem. 266 (6), 3900-3906 (1991)

Images

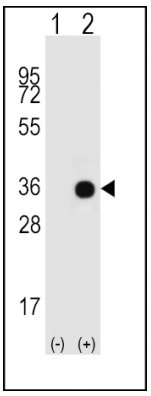


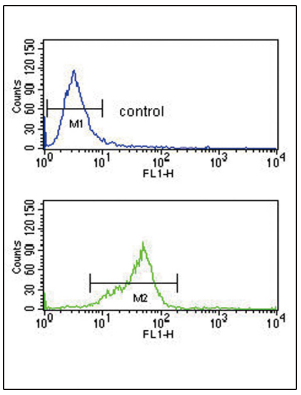
GNAO1 Antibody (C-term) (Cat. #AP9134b) western blot analysis in U251 cell line and rat brain lysates (35ug/lane).This demonstrates the GNAO1 antibody detected the GNAO1 protein (arrow).



Western blot analysis of GNAO1 Antibody (C-term) (Cat. #AP9134b) in mouse brain tissue lysates (35ug/lane). GNAO1 (arrow) was detected using the purified Pab.

Western blot analysis of GNAO1 (arrow) using rabbit polyclonal GNAO1 Antibody (C-term) (Cat. #AP9134b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the GNAO1 gene.





GNAO1 Antibody (C-term) (Cat. #AP9134b) flow cytometry analysis of K562 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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