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GNAO1 Rabbit pAb

Catalog # AP97706

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P09471
Other Accession	P09471
Predicted	Rat, Pig, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	40051
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GNAO1
Epitope Specificity	221-320/345
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the G-alpha family. G(i/o/t/z) subfamily.
SUBUNIT	Interacts with RGS14 (By similarity). G proteins are composed of 3 units; alpha, beta and gamma. The alpha chain contains the guanine nucleotide binding site.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. Stimulated by RGS14.

Additional Information

Gene ID	2775
Other Names	DEE17; EIEE17; G-ALPHA-o; GNAO; HG1G; HLA-DQB1; NEDIM; Galphao; alphaO; RATBPGTPC; GNAO_HUMAN; GNAO1; 3.6.5.-; GNAO_MOUSE; Gna0; GNAO_RAT; G protein subunit alpha o1; guanine nucleotide binding protein (G protein), alpha activating activity polypeptide O
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

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