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GNAS Antibody (Ascites)

Mouse Monoclonal Antibody (Mab)
Catalog # AM2129a

Product Information

Application	WB, E
Primary Accession	Q5FWY2
Other Accession	P29797, Q8R4A8, P63095, P63094, P63092, P04896, Q63803, Q6R0H7, Q5JWF2
Reactivity	Mouse
Predicted	Human, Rat, Bovine, Hamster, Pig
Host	Mouse
Clonality	Monoclonal
Isotype	IgM
Clone Names	559CT 16.1.3
Calculated MW	44250
Antigen Region	287-315

Additional Information

Gene ID	2778
Other Names	GNAS complex locus;GNAS;
Target/Specificity	This GNAS antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 287-315 amino acids from human GNAS.
Dilution	WB~~1:300 E~~Use at an assay dependent concentration.
Format	Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.
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	GNAS Antibody (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GNAS {ECO:0000313|EMBL:AAH89157.2}
Function	Guanine nucleotide-binding protein (G protein) involved as transducer in olfactory signal transduction controlled by G protein- coupled receptors (GPCRs). Contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP- bound state. Signaling by an activated GPCR promotes GDP release and GTP binding. The alpha subunit

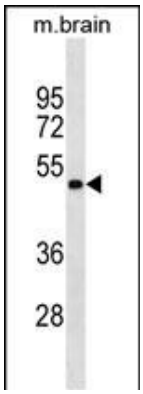
has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal. Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins. GNAL/G(olf) alpha specifically mediates olfactory signal transduction within the olfactory neuroepithelium and the basal ganglia following GPCRs activation. Acts by promoting the specific activation of adenylyl cyclase ADCY3, resulting in increased levels of the signaling molecule cAMP.

Cellular Location Cell membrane {ECO:0000256|ARBA:ARBA00004193}; Lipid-anchor {ECO:0000256|ARBA:ARBA00004193}

Background

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems. The Gs protein is involved in hormonal regulation of adenylate cyclase: it activates the cyclase in response to beta-adrenergic stimuli. Alternative splicing of downstream exons of the GNAS gene is observed, which results in different forms of the stimulatory G protein alpha subunit, a key element of the classical signal transduction pathway linking receptor-ligand interactions with the activation of adenylyl cyclase and a variety of cellular reponses. Multiple transcript variants have been found for this gene, but the full-length nature and/or biological validity of some variants have not been determined. Mutations in this gene result in pseudohypoparathyroidism type 1a, pseudohypoparathyroidism type 1b, Albright hereditary osteodystrophy, pseudopseudohypoparathyroidism, McCune-Albright syndrome, progressive osseus heteroplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors.

Images



GNAS Antibody(Ascites)(Cat. #AM2129a) western blot analysis in mouse brain tissue lysates (35µg/lane).This demonstrates the GNAS antibody detected the GNAS protein (arrow).