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GNAI2 Antibody

Rabbit mAb
Catalog # AP92941

Product Information

Application	WB, IHC
Primary Accession	P04899
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	GIP; Gnai2; GNAI2B;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	40451

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human GNAI2
Description	Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems. The G(i) proteins are involved in hormonal regulation of adenylate cyclase: they inhibit the cyclase in response to beta-adrenergic stimuli. May play a role in cell division.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	GNAI2
Synonyms	GNAI2B
Function	Guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs) in numerous signaling cascades (PubMed:38505600, PubMed:29925945, PubMed:35637350, PubMed:35365641). The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state (PubMed:12359238). Signaling by an activated GPCR promotes GDP release and GTP binding (PubMed:29925945). Examples of interacting GPCRs include the adenosine A1 receptor/ADORA1, CNR1, and FPR2 (PubMed:29925945, PubMed:35637350, PubMed:35365641). 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 (PubMed:12359238). Signaling is mediated via effector proteins, such as adenylate cyclase: inhibits adenylate cyclase

activity of ADCY1, ADCY5 and ADCY6, leading to decreased intracellular cAMP levels. Plays an important role in the activation of the transcription factor NFAT in endothelial cells to promote angiogenesis (PubMed:38505600). The G(i) proteins are involved in hormonal regulation of adenylate cyclase: they inhibit the cyclase in response to beta-adrenergic stimuli. Plays an essential role for neutrophil recruitment in the context of acute inflammation suggesting a linked function of both GNAI2 in neutrophils and endothelial cells for polymorphonuclear neutrophils transmigration (By similarity).

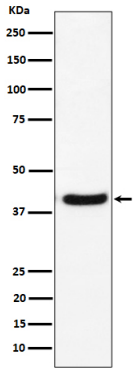
Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cell membrane. Membrane; Lipid-anchor. Note=Localizes in the centrosomes of interphase and mitotic cells. Detected at the cleavage furrow and/or the midbody

Tissue Location

Highly expressed in endothelial cells.

Images



Western blot analysis of GNAI2 expression in U-87 MG cell lysate.

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