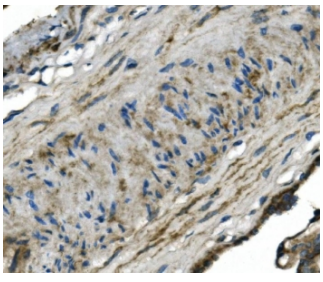
GNG4 Antibody / G Protein Gamma 4 Subunit Signaling Marker (RQ6130)

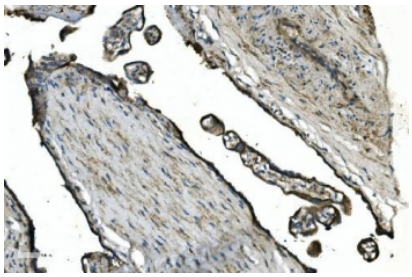
Catalog No.	Formulation	Size
RQ6130	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

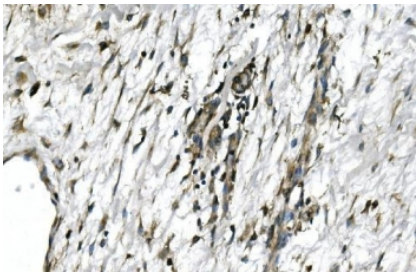
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P50150
RRID	AB_3713463
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This GNG4 antibody is available for research use only.



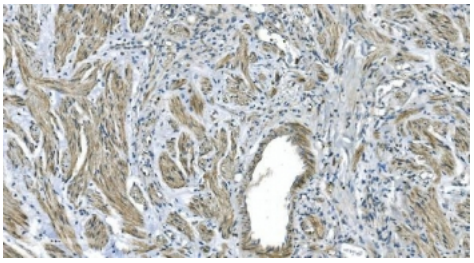
GNG4 Antibody for IHC. FFPE human placenta tissue stained with GNG4 antibody shows cytoplasmic and membranous staining in placental cells, consistent with G protein-coupled receptor signaling localization. A rabbit polyclonal format was used following HIER with pH8 EDTA buffer for antigen retrieval. Hematoxylin counterstain highlights nuclei (blue), while GNG4 signal is observed as brown staining within trophoblastic and stromal cell populations.



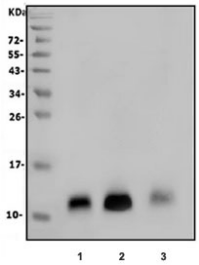
IHC staining of FFPE human placenta with GNG4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



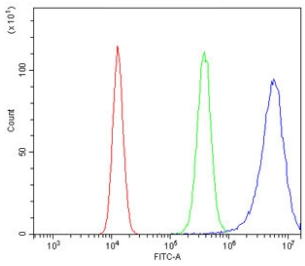
IHC staining of FFPE human melanoma with GNG4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human renal carcinoma with GNG4 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



GNG4 Antibody for WB. Western blot analysis in human SH-SY5Y, rat brain, and mouse brain lysates. Lane 1: human SH-SY5Y lysate, Lane 2: rat brain lysate, Lane 3: mouse brain lysate. A band is detected at approximately 12 kDa, consistent with the predicted molecular weight of G protein subunit gamma 4 / GNG4. The observed signal across neuronal-derived and brain tissues aligns with the known enrichment of GNG4 in neural signaling pathways and its role as a membrane-associated component of the G protein beta-gamma complex involved in GPCR-mediated signal transduction.



GNG4 Antibody for FACS. Flow cytometry analysis in human 293T cells. Cells were stained with GNG4 antibody at 1 ug per million cells following blocking with goat sera. Red histogram represents unstained cells, green indicates isotype control, and blue shows GNG4 Antibody staining with a clear rightward shift, demonstrating specific detection of G protein subunit gamma 4 / GNG4 expression. This pattern supports the presence of GNG4 in human cells and highlights its role in GPCR-associated signaling pathways relevant to cellular communication and signal transduction.

Description

G protein subunit gamma 4 (GNG4) is a small cytoplasmic and membrane-associated protein that functions as a member of the heterotrimeric G protein gamma subunit family, playing a central role in G protein-coupled receptor (GPCR) signaling pathways. The GNG4 Antibody is widely used to study GPCR-mediated signaling mechanisms, particularly in cancer biology, immune regulation, and neuronal signaling contexts where precise modulation of intracellular signaling cascades is critical.

GNG4 antibody, also known as G Protein Gamma 4 antibody or Guanine nucleotide-binding protein subunit gamma-4 antibody, recognizes a component of the G beta-gamma complex that regulates downstream effectors such as ion

channels, adenylyl cyclases, and phospholipase C pathways. As part of the broader G protein family, GNG4 pairs with beta subunits to form functional signaling units that transduce extracellular signals into intracellular responses, influencing processes such as cell proliferation, migration, and differentiation.

This protein belongs to the G protein gamma family, characterized by their role in stabilizing G beta subunits and targeting the G beta-gamma complex to cellular membranes. GNG4 is predominantly localized to the cytoplasmic side of the plasma membrane, where it participates in receptor-mediated signaling events. Expression of GNG4 has been reported in multiple tissues, including brain, immune cells, and epithelial tissues, with elevated expression observed in certain malignancies such as colorectal cancer and glioma, highlighting its potential as a tumor-associated signaling marker.

Functionally, GNG4 contributes to signal amplification and specificity within GPCR pathways, interacting with multiple signaling partners to modulate pathways such as MAPK signaling and calcium flux regulation. It has also been implicated in shaping immune cell responses, particularly in dendritic cell subsets, where GNG4 expression may influence antigen presentation and cellular activation states. In cancer research, GNG4 is increasingly recognized for its association with tumor progression, invasion, and microenvironment signaling, making it a useful biomarker for studying oncogenic GPCR signaling networks.

A rabbit polyclonal GNG4 Antibody is suitable for detecting GNG4 expression in research applications focused on GPCR signaling, tumor biology, and immune cell characterization. Its ability to target G protein gamma 4 supports studies examining signal transduction dynamics, receptor-effector coupling, and disease-associated signaling alterations.

Application Notes

Optimal dilution of the GNG4 Antibody / G Protein Gamma 4 Subunit Signaling Marker should be determined by the researcher.

Immunogen

A human recombinant partial protein (amino acids M1-D52) was used as the immunogen for the GNG4 Antibody / G Protein Gamma 4 Subunit Signaling Marker.

Storage

After reconstitution, the GNG4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

G Protein Gamma 4 antibody, Guanine Nucleotide Binding Protein Gamma 4 antibody, G Gamma 4 antibody, GNG4 protein antibody

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