Anti-GNA13 Antibody [JE63-76]

HA721007

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 44 kDa
Clone number:	JE63-76

Description: Guanine nucleotide-binding protein subunit alpha-13 is a protein that in humans is encoded by the GNA13 gene. The GNA13 gene encodes the G13 G protein alpha subunit. Together with GNA12, these two proteins comprise one of the four classes of heterotrimeric G protein alpha subunits. Heterotrimeric G proteins function in transducing hormone and neurotransmitter signals detected by cell surface G protein-coupled receptors to intracellular signaling pathways to modulate cell functions. G protein alpha subunits bind to guanine nucleotides and function in a regulatory cycle, and are active when bound to GTP but inactive and associated with the G beta-gamma complex when bound to GDP. Active GTP-bound G12 alpha subunit interacts with and activates ARHGEF1, ARHGEF11, and ARHGEF12. These ARHGEF proteins function as guanine nucleotide exchange factors for the Rho small GTPases to regulate the actin cytoskeleton. GNA13 has been shown to interact with AKAP3, RIC8A, and Radixin. Recurrent mutations in this gene have been associated to cases of diffuse large B-cell lymphoma.

Immunogen: Recombinant protein within human GNA13 aa 278-377/377.

Positive control: 293T cell lysate, HepG2 cell lysate, 293 cell lysate, Jurkat cell lysate, PC-12 cell lysate, NIH/3T3 cell lysates, mouse colon tissue.

Subcellular location: Cell membrane, Nucleus, Cytoplasm, Melanosome.

Database links: SwissProt: Q14344 Human | P27601 Mouse | Q6Q7Y5 Rat

Recommended Dilutions:

WB	1:500-1:1,000
IHC-P	1:500

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

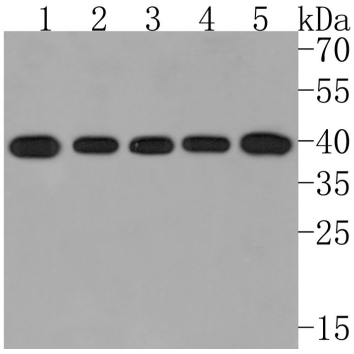

Fig1: Western blot analysis of GNA13 on different lysates with Rabbit anti-GNA13 antibody (HA721007) at 1/500 dilution.

Lane 1: 293T cell lysate
Lane 2: HepG2 cell lysate
Lane 3: 293 cell lysate
Lane 4: Jurkat cell lysate
Lane 5: PC-12 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 44 kDa
Observed band size: 40 kDa

Exposure time: 2 minutes;

12% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721007) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

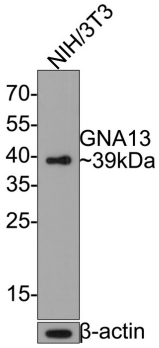

Fig2: Western blot analysis of GNA13 on NIH/3T3 cell lysates with Rabbit anti-GNA13 antibody (HA721007) at 1/1,000 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 44 kDa
Observed band size: 40 kDa

Exposure time: 2 minutes;

12% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721007) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

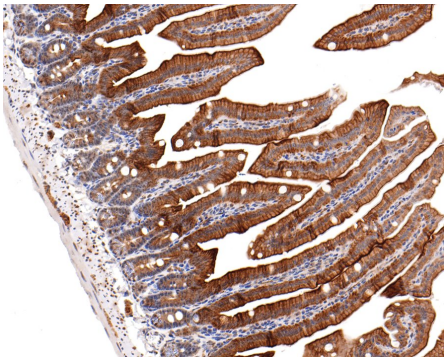

Fig3: Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rabbit anti-GNA13 antibody (HA721007) at 1/400 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721007) at 1/400 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Xia Z. et. al. GNA13 regulates BCL2 expression and the sensitivity of GCB-DLBCL cells to BCL2 inhibitors in a palmitoylation-dependent manner. Cell Death Dis. 2021 Jan
2. Rasheed SAK. et. al. GNA13 expression promotes drug resistance and tumor-initiating phenotypes in squamous cell cancers. Oncogene. 2018 Mar