Anti-Gbeta5 Antibody

HA500513

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, FC
Molecular Wt:	44 kDa

Description: Heterotrimeric guanine nucleotide-binding proteins (G proteins), which integrate signals between receptors and effector proteins, are composed of an alpha, a beta, and a gamma subunit. These subunits are encoded by families of related genes. This gene encodes a beta subunit. Beta subunits are important regulators of alpha subunits, as well as of certain signal transduction receptors and effectors. Alternatively spliced transcript variants encoding different isoforms exist.

Immunogen: Recombinant protein within human Gbeta5 aa 1-200.

Positive control: HepG2 cell lysate, mouse brain tissue lysate, rat brain tissue lysate, rat brain tissue, Hela.

Subcellular location: Membrane.

Database links: SwissProt: O14775 Human | P62881 Mouse | P62882 Rat

Recommended Dilutions:

WB	1:1,000-1:5,000
IHC-P	1:50-1:200
FC	1:100-1:500

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

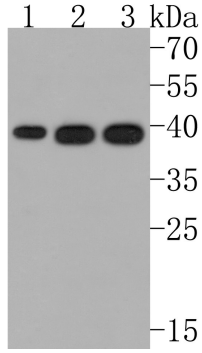

Fig1: Western blot analysis of Gbeta5 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500513, 1/1,000) was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: HepG2 cell lysate
Lane 2: Mouse brain tissue lysate
Lane 3: Rat brain tissue lysate

Predicted band size: 43 kDa
Observed band size: 40 kDa

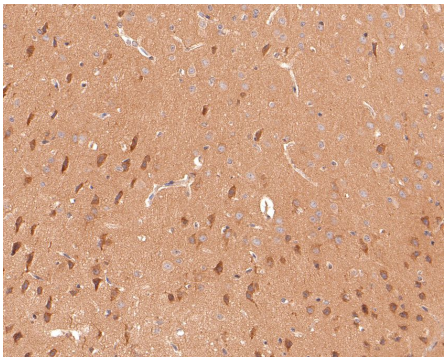

Fig2: Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-Gbeta5 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA500513, 1/200) for 30 minutes 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.

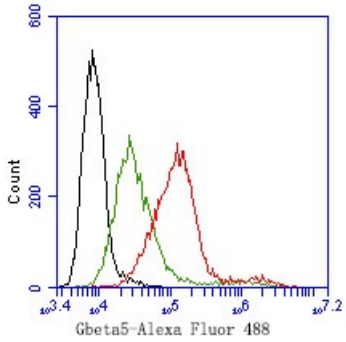

Fig3: Flow cytometric analysis of Gbeta5 was done on Hela cells. The cells were stained with the primary antibody (HA500513, 1ug/ml) (red) compared with Rabbit IgG, monoclonal - Isotype Control (green). After incubation of the primary antibody at at +4℃ for 1 hour, the cells were stained with a Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 min at +4℃ (dark incubation).Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Mai JH. et. al. Intellectual developmental disorder with cardiac arrhythmia syndrome in a family caused by GNB5 variation and literature review. Zhonghua Er Ke Za Zhi. 2020 Oct
2. Shao Z. et. al. Unique retinal signaling defect in GNB5-related disease. Doc Ophthalmol. 2020 Jun