Recombinant GBRG1 protein (His tag)

Catalog Number	540724
Synonyms	GABA(A) receptor subunit gamma-1; GABAAR subunit gamma-1
Species	Human
Expression System	E. coli
Accession	Q8N1C3
Molecular Weight	Predictes a molecular mass of 26.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Amino Acid Sequence	MNHKVDITQI LNSLLQGYDN KLRPDIGVRP TVIETDVYVN SIGPVDPINM EYTIDIIFAQ TWFDSRLKFN STMKVLMLNS NMVGKIWIPD TFFRNSRKSD AHWITTPNRL LRIWNDGRVL YTLRLTINAE CYLQLHNFPM DEHSCPLEFS SYGYPKNEIE YKWKKPSVEV ADPKYWRLYQ FAFVGLRNST EITHTISGDY VIMTIFFDLS RRMGYFLEHH HHHH
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 63-273 aa (Q8N1C3) were fused with C-terminal 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

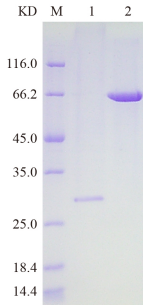
Description

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Recombinant human Gamma-aminobutyric acid receptor subunit gamma-1 (GABA(A) receptor subunit gamma-1) fragment (residues 63-273) is a stable, soluble protein unit ideal for structural studies, biochemical assays, and functional investigations of GABAergic neurotransmission.
The full-length GABA(A) receptor subunit gamma-1, encoded by the GABRG1 gene, functions as a gamma subunit in heteropentameric ligand-gated chloride channels activated by gamma-aminobutyric acid (GABA), the primary inhibitory neurotransmitter in the brain. These GABA-gated chloride channels, composed of five subunits surrounding a central pore, contain GABA binding sites at alpha-beta subunit interfaces. Upon GABA binding, the receptor selectively permits chloride ion flow across the cell membrane along its electrochemical gradient, leading to chloride influx into postsynaptic neurons that reduces neuronal excitability and dampens synaptic transmission. The protein localizes to the postsynaptic cell membrane and functions as a multi-pass membrane protein, playing a critical role in regulating neuronal inhibition and maintaining CNS homeostasis.

Validation

SDS-PAGE



Recombinant GBRG1 protein (His tag) SDS-PAGE
M: Marker; Lane 1: GBRG1; Lane 2: BSA