

GABRB2 Protein, Human (His)

Cat. No.:	HY-P71447
Synonyms:	GABA(A) receptor subunit beta-2
Species:	Human
Source:	E. coli
Accession:	P47870 (26S-244Y)
Gene ID:	2561
Molecular Weight:	Approximately 29.3 kDa

PROPERTIES

AA Sequence	<p> S V N D P S N M S L V K E T V D R L L K G Y D I R L R P D F G G P P V A V G M N I D I A S I D M V S E V N M D Y T L T M Y F Q Q A W R D K R L S Y N V I P L N L T L D N R V A D Q L W V P D T Y F L N D K K S F V H G V T V K N R M I R L H P D G T V L Y G L R I T T T A A C M M D L R R Y P L D E Q N C T L E I E S Y G Y T T D D I E F Y W R G D D N A V T G V T K I E L P Q F S I V D Y K L I T K K V V F S T G S Y P R L S L S F K L K R N I G Y </p>
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>The GABRB2 protein serves as a critical component of the heteropentameric receptor for gamma-aminobutyric acid (GABA), the principal inhibitory neurotransmitter in the brain. Functioning as a ligand-gated chloride channel, GABRB2 plays a vital role in the establishment of functional inhibitory GABAergic synapses, contributing to synaptic inhibition as a GABA-gated ion channel. The gamma2 subunit is essential for the rapid formation of active synaptic contacts, with the synaptogenic effect influenced by the specific combination of alpha and beta subunits in the receptor pentamer. Both the alpha1/beta2/gamma2 and alpha2/beta2/gamma2 receptor configurations exhibit synaptogenic activity. Beyond its role in GABA signaling, GABRB2 functions as a histamine receptor, mediating cellular responses to histamine. Moreover, the protein</p>
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is allosterically activated by benzodiazepines and the anesthetic etomidate, while its activity is inhibited by the antagonist bicuculline.

Caution: Product has not been fully validated for medical applications. For research use only.

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