

RGS17 Protein, Human (GST)

Cat. No.:	HY-P700384
Synonyms:	RGS17; RGSZ2; RGS-17; hRGS17; regulator of G-protein signaling 17; OTTHUMP00000017460
Species:	Human
Source:	E. coli
Accession:	Q9UGC6 (M1-S210)
Gene ID:	26575
Molecular Weight:	51.4 kDa

PROPERTIES

AA Sequence	<pre> MRKRQQSQNE GTPAVSQAPG NQRPNNTCCF CWCCCCSCSC LTVRNEERGE NAGRPTHHTK MESIQVLEEC QNPTAEEVLS WSQNFDKMMK APAGRNLFRE FLRTEYSEEN LLFWLACEDL KKEQNKKVI E EKARMIYEDY ISILSPKEVS LDSRVREVIN RNLLDPNPHM YEDAQLQIYT LMHRDSFPRF LNSQIYKSFV ESTAGSSSES </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 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 RGS17 protein plays a pivotal role in the regulation of G protein-coupled receptor signaling cascades, including those mediated by muscarinic acetylcholine receptor CHRM2 and dopamine receptor DRD2. Its regulatory function involves inhibiting signal transduction by enhancing the GTPase activity of G protein alpha subunits, thereby promoting their transition into the inactive GDP-bound form. RGS17 exhibits selective binding to GNAZ and GNAI2 subunits, accelerating their GTPase activity and modulating their signaling activities. Additionally, RGS17 negatively regulates mu-opioid receptor-mediated activation of G-proteins. The protein interacts with GNAI1 and GNAQ and forms complexes with mu-opioid receptors and G(alpha)z/i2 subunits, contributing to mu-opioid receptor desensitization. Further molecular interactions</p>
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include binding to OPRM1 and interacting with HINT1, underscoring the intricate regulatory network in which RGS17 participates to modulate diverse G protein-dependent signaling pathways.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA