



Recombinant Protein Technical Manual

**Recombinant Human 14-3-3 tau/14-3-3
theta/YWHAQ Protein (GST Tag)**
RPES0445

Product Data:

Product SKU: RPES0445

Size: 50µg

Species: Human

Expression host: E. coli

Uniprot: P27348

Protein Information:

Molecular Mass: 54.6 kDa

AP Molecular Mass: 53 kDa

Tag: N-GST

Bio-activity:

Purity: > 88 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 20mM Tris, 0.15m NaCl, 20mM GSH, pH 7.5

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: 1C5;41701;HS1

Immunogen Information:

Sequence: Met 1-Asn 245

Background:

G protein-coupled receptor kinase 5, also known as G protein-coupled receptor kinase GRK5 and GRK5, is a member of the protein kinase superfamily, AGC Ser/Thr protein kinase family and GPRK subfamily. GRKs specifically phosphorylate agonist-occupied G protein-coupled receptors at the inner surface of the plasma membrane (PM), leading to receptor desensitization. GRKs utilize a variety of mechanisms to bind tightly, and sometimes reversibly, to cellular membranes. GRKs play an important role in mediating agonist-specific desensitization of numerous G protein-coupled receptors. GRK5 contains one AGC-kinase C-terminal domain, one protein kinase domain and one RGS domain. GRK5 specifically phosphorylates the activated forms of G protein-coupled receptors. Phospholipid-stimulated autophosphorylation may represent a novel mechanism for membrane association and regulation of GRK5 activity. GRK5 deficiency significantly exaggerates microgliosis and astrogliosis in the presence of an inflammatory initiator, such as the excess fibrillar A β and the subsequent active inflammatory reactions. GRK5 deficiency has been linked to early Alzheimer's disease in humans and mouse models of the disease.