

## Product datasheet for **TP509199**

### Grk5 (NM\_018869) Mouse Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins

**Description:** Purified recombinant protein of Mouse G protein-coupled receptor kinase 5 (Grk5), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug

**Species:** Mouse

**Expression Host:** HEK293T

**Expression cDNA Clone or AA Sequence:** >MR209199 protein sequence  
**Red**=Cloning site **Green**=Tags(s)

MELENIVANTVLLKAREGGGGKRGKSKKWKEILKFPHISQCEDLRRTIDRDYYSLCDKQPIGRLLFRQF  
CETRPGLECYIQFLDLVAEYEITPDENLGAKGKEIMTKYLTPKSPVFIAQVGGDLVVSQTEKLLQSPCKE  
LFSACAQSVHDYLTGDPFHEYLD SMYFDRFLQWKWLERQPVTKNTFRQYRVLGKGGFGEVCACQVRATGK  
MYACKRLEKKRIKKRKGESMALNEKQILEKVN SQFVNLAYAYETKDALCLVLTIMNGGDLKFHIYNMGN  
PGFEEERALFYAAEILCGLEDLHRENTVYRDLKPENILLDDYGHIRISDLGLAVKIPEGDLIRGRVGTVG  
YMAPEVLNNQRYGLSPDYWGLGCLYEMIEGQSPFRGRKEKVKREEVDRRVLETEEVYSSKFSEEAKSIC  
NMLLTKDSKQRLGCQEEGAAEVKRHPFRNMNFKRLEAGMLDPPFPDPRAVYCKDVLIDIEQFSTVKGVN  
LDHTDDDFYSKFSTGSPVPIWQNEMIETECFKELNVFGPNGTLPDLNRSQPPEPPKKGLFHRFRRHQHQ  
SNSKSSPTPKTSCNHRINSNHINSNSTGSS

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Tag:** C-MYC/DDK

**Predicted MW:** 67.7 kDa

**Concentration:** >0.05 µg/µL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**Storage:** Store at -80°C after receiving vials.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.



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RefSeq: [NP\\_061357](#)

Locus ID: 14773

UniProt ID: [Q8VEB1](#), [Q3TST4](#)

RefSeq Size: 3182

Cytogenetics: 19 56.52 cM

RefSeq ORF: 1773

Synonyms: Gprk5

**Summary:** Serine/threonine kinase that phosphorylates preferentially the activated forms of a variety of G-protein-coupled receptors (GPCRs). Such receptor phosphorylation initiates beta-arrestin-mediated receptor desensitization, internalization, and signaling events leading to their down-regulation. Phosphorylates a variety of GPCRs, including adrenergic receptors, muscarinic acetylcholine receptors (more specifically Gi-coupled M2/M4 subtypes), dopamine receptors and opioid receptors. In addition to GPCRs, also phosphorylates various substrates: Hsc70-interacting protein/ST13, TP53/p53, HDAC5, and arrestin-1/ARRB1. Phosphorylation of ARRB1 by GRK5 inhibits G-protein independent MAPK1/MAPK3 signaling downstream of 5HT4-receptors. Phosphorylation of HDAC5, a repressor of myocyte enhancer factor 2 (MEF2) leading to nuclear export of HDAC5 and allowing MEF2-mediated transcription. Phosphorylation of TP53/p53, a crucial tumor suppressor, inhibits TP53/p53-mediated apoptosis. Phosphorylation of ST13 regulates internalization of the chemokine receptor. Phosphorylates rhodopsin (RHO) (in vitro) and a non G-protein-coupled receptor, LRP6 during Wnt signaling (in vitro).  
[UniProtKB/Swiss-Prot Function]