

# Recombinant Rat WNT5A Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP52591

Size: 10ug, 100ug

Protein Name: Protein Wnt-5a

Synonym: Wnt5a, Wnt-5a

UniProt ID: Q9QXQ7

UniProt Link: [www.uniprot.org/uniprotkb/Q9QXQ7/entry](http://www.uniprot.org/uniprotkb/Q9QXQ7/entry)

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 380 AA

Molecular Weight: 42 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MKKPIGILSPGVALGTAGGAMSSKFFLMALATFFSFAQVVEANSWWSLGMNPNVQMSEVHIIGAQP  
LCSQLAGLSQGQKKLCHLYQDHMQYIGEGAKTGIKECQYQFRHRRWNCSTVDNTSVFGRVMQIGS  
RETAFTYAVSAAGVVNAMSRACREGELSTCGCSRAARPKDLPRDWLWGGCGDNIDYGYRFAKEFV  
DARERERIHAKGSYESARILMNLHNNEAGRRTVYNLADVACKCHGVSGCSLKTCLWLQLADFRKVG  
DALKEYDSAAAMRLNSRGKLVQVNSRFNSPTTQDLVYIDPSPDYCVRNESTGSLGTQGRLCNKTS  
EGMDGCELMCCGRGYDQFKTVQTERCHCKFWCCYVKCKKCTEIVDQFVCK

## 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

## 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

## 5. Product Description

This product is recombinant Protein Wnt-5a produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

**Protein Function:** Ligand for members of the frizzled family of seven transmembrane receptors. Can activate or inhibit canonical Wnt signaling, depending on receptor context. In the presence of FZD4, activates beta-catenin signaling. In the presence of ROR2, inhibits the canonical Wnt pathway by promoting beta-catenin degradation through a GSK3-independent pathway which involves down-regulation of beta-catenin-induced reporter gene expression (By similarity). Suppression of the canonical pathway allows chondrogenesis to occur and inhibits tumor formation. Stimulates cell migration. Decreases proliferation, migration, invasiveness and clonogenicity of carcinoma cells and may act as a tumor suppressor. Mediates motility of melanoma cells (By similarity). Required during embryogenesis for extension of the primary anterior-posterior axis and for outgrowth of limbs and the genital tubercle. Inhibits type II collagen expression in chondrocytes (By similarity).

**Subcellular Localization:** Secreted, extracellular space, extracellular matrix . Secreted .

## 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.