

Recombinant Rat ONCM Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52523

Size: 10ug, 100ug

Protein Name: Oncostatin-M (OSM)

Synonym: Osm

UniProt ID: Q65Z15

UniProt Link: www.uniprot.org/uniprotkb/Q65Z15/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 239 AA

Molecular Weight: 27 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MRAQPPPRLLSLALALLFLSMWAKRGCS SSPKLLSQLKSQANITGNTASLLEPYILHQNLTNTL
RAACTEHPVAFPSDMLRQLSKPDLSTVHATLGRVWHQLGAFRQQFPKIQDFPELERARQNIQGIR
NNVYCMARLLHPPLEIPEPTQADSGTSRPTTTAPGIFQIKIDSCRFLWGYHRFMGSVGRVFEEWGDG
SRRSRRHSPLWAWLKGDHRIRPSRSSQSAMLRSLVPR

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 Oncostatin-M (OSM) 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: Functions as a cytokine that uses both type I OSM receptor (heterodimers composed of LIFR and IL6ST) and type II OSM receptor (heterodimers composed of OSMR and IL6ST) (By similarity). Functionally, regulates many processes including cell proliferation, cell differentiation, cytokine production (PubMed:15743783). Mechanistically, low affinity ligand binding to IL6ST/gp130, induces heterodimerization with LIFR or OSMR, activating JAK tyrosine kinases (JAK1 or JAK2 and to a lesser extent TYK2) bound to their intracellular domains. These kinases subsequently phosphorylate IL6ST/gp130 and LIFR or OSMR. The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of STAT3. The type II OSM complex receptor is also able in addition to STAT3 to recruit STAT5B. Moreover, the type II OSM complex receptor recruits SHC1 through OSMR in a JAK1 mediated phosphotyrosine-dependent manner, leading to SHC1 association with GRB2 and downstream activation of the Ras/Raf/MAPK pathway (By similarity).

Subcellular Localization: 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.