

Recombinant Human ONCM Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50751

Size: 10ug, 100ug

Protein Name: Oncostatin-M (OSM)

Synonym: OSM

UniProt ID: P13725

UniProt Link: www.uniprot.org/uniprotkb/P13725/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 252 AA

Molecular Weight: 28 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGVLLTQRLLSLVLALLFPSMASMAAIGSCSKEYRVLLGQLQKQTDLMQDTSRLDPYIRIQGLDVP
KLREHCRERPGAFPSEETLRGLGRRGFLQTLNATLGCVLHRLADLEQRLPKAQDLERSGLNIEDLEK
LQMARPNILGLRNNIYCMAQLLDNSDTAEPTKAGRGASQPPTPTPASDAFQRKLEGCRFLHGYHRF
MHSVGRVFSKWGESPNRSRRHSPHQALRKGVRRTRPSRKGKRLMTRGQLPR

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) (PubMed:10997905, PubMed:39532904, PubMed:8999038). Functionally, regulates many processes including cell proliferation, cell differentiation, cytokine production (PubMed:10997905, PubMed:1542792, PubMed:1542793, PubMed:1717982, PubMed:2779549, PubMed:3540948). 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 (PubMed:9188471). These kinases subsequently phosphorylate IL6ST/gp130 and LIFR or OSMR (PubMed:8999038). The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of STAT3 (PubMed:9188471). The type II OSM complex receptor is also able in addition to STAT3 to recruit STAT5B (PubMed:9188471). 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 (PubMed:11016927).

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.