

Recombinant Mouse MYSM1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51686

Size: 10ug, 100ug

Protein Name: Deubiquitinase MYSM1 (2A-DUB) (EC 3.4.19.-) (Myb-like, SWIRM and MPN domain-containing protein 1)

Synonym: Mysm1, Kiaa1915

UniProt ID: Q69Z66

UniProt Link: www.uniprot.org/uniprotkb/Q69Z66/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 819 AA

Molecular Weight: 93 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MEAEADVDVEGDVAAAAQPGNDESTASVFQDHYLDSTWRRENGCLPWTLDSTISDENRAIIEKML
LEEEYYLSNKSPLPGKFWVNQKEDNKKYTNSLQKSSKAMVDSPAKPASHSVKWTVEEKELFEQGLAK
FGRRWTKIATLLKSRTLQVKSYARQYFKNKVKWDVEKETPTQKSSDLQVKNKDDRTKAWAAACL
RGSADPCLNAVKIEKLSDDDEDVDITDELDELTSQTSQNSGSHLTLDVPNSKMYTTNQGELCQEGPLA
KSSGESLQNVKQGEGEACSSSEIASWAEKQKSTDKNSEKYNKVVVEHTLHRGEVREEAKHS
PSPEPCERQDSSGNEMLLPPCQIEEENHEGEELKPPEQEVEIDRNVIQEEEEKQAIPEFFEGRQTKTP
ERYLKIRNYILDQWEICKPKYLNKTSVRPGLKNCGDVNCIGRIHTYLELIGAINFGCEQAVYNRPQPLD
KVRAADRKDAAEAYQLAWRLQSMRTRRRRVRDPWGNWCDKDLLEGQTFEHLVSEEMARRKEEEK
CKPIKFSKASKLPKSSLDPFQLPCNFFSEEKQEPFQVKVAAEALLIMNLHAHVSMAEVIGLLGGRYSE
ADKVLEVCAAEPNSLSTGLQCEMDPVSQTQASETLALRGYSVIGWYHSHPAFDPNPSLRDIDTQA
KYQSYFSRGGAKFIGMIVSPYNRSNPLPYSQITCLVISEEVSPDGTYRLPYKFEVQQMLEEPQWELV
FEKTRWIEKYRLSNSSVPMRIFRRDSDLTCLQKLECLRKTLKSVANCFIAEEFLTQIENLFLSNYKS
KEENGLAEEDSTKELFM

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 Deubiquitinase MYSM1 (2A-DUB) (EC 3.4.19.-) (Myb-like, SWIRM and MPN domain-containing protein 1) 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: Metalloprotease with deubiquitinase activity that plays important regulator roles in hematopoietic stem cell function, blood cell production and immune response (PubMed:26474655, PubMed:27895164, PubMed:30405132). Participates in the normal programming of B-cell responses to antigen after the maturation process (PubMed:27895164). Within the cytoplasm, plays critical roles in the repression of innate immunity and autoimmunity (PubMed:26474655, PubMed:30405132). Removes 'Lys-63'-linked polyubiquitins from TRAF3 and TRAF6 complexes (PubMed:26474655). Attenuates NOD2-mediated inflammation and tissue injury by promoting 'Lys-63'-linked deubiquitination of RIPK2 component (PubMed:30405132). Suppresses the CGAS-STING1 signaling pathway by cleaving STING1 'Lys-63'-linked ubiquitin chains (PubMed:33086059). In the nucleus, acts as a hematopoietic transcription regulator derepressing a range of genes essential for normal stem cell differentiation including EBF1 and PAX5 in B-cells, ID2 in NK-cell progenitor or FLT3 in dendritic cell precursors (PubMed:22169041, PubMed:24062447, PubMed:25217698, PubMed:26348977). Deubiquitinates monoubiquitinated histone H2A, a specific tag for epigenetic transcriptional repression, leading to dissociation of histone H1 from the nucleosome (By similarity).

Subcellular Localization: Nucleus . Cytoplasm . Note=Localizes to the cytoplasm in response to bacterial infection.

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.