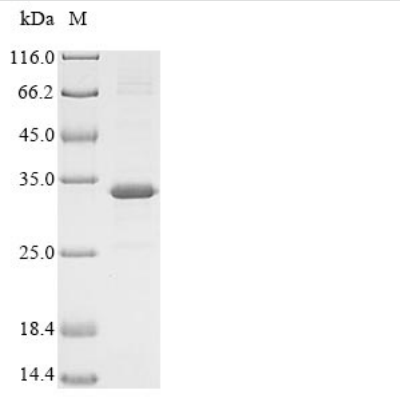
Recombinant Rat Meteorin-like protein (Metrnl)

Product Code	CSB-EP719323RA
Relevance	Hormone induced following exercise or cold exposure that promotes energy expenditure. Induced either in the skeletal muscle after exercise or in adipose tissue following cold exposure and is present in the circulation. Able to stimulate energy expenditure associated with the browning of the white fat depots and improves glucose tolerance. Does not promote an increase in a thermogenic gene program via direct action on adipocytes, but acts by stimulating several immune cell subtypes to enter the adipose tissue and activate their prothermogenic actions. Stimulates an eosinophil-dependent increase in IL4 expression and promotes alternative activation of adipose tissue macrophages, which are required for the increased expression of the thermogenic and anti-inflammatory gene programs in fat. Required for some cold-induced thermogenic responses, suggesting a role in metabolic adaptations to cold temperatures.
Abbreviation	Recombinant Rat Metrnl protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	Q5RJL6
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	QYSSDLCSWKGSGLTREAHSKEVEQVYLRCSAGSVEWMYPTGALIVNLRPNT FSPAQNLTVCIKPFRDSSGANIYLEKTGELRLLVRDVRGEPGQVQCFSLEQGG LFVEATPQQDISRRTTGFQYELMSGQRGLDLHVLSAPCRPCSDTEVLLAICTS DFVVRGFIEDVTHVPEQQVSVIHLRVSRLHRQKSRVFQPAPEDSGHWLGHVT TLLQCGVRPGHGEFLFTGHVHFGEAQLGCAPRFSDFQKMYRKAEERGINPCE INME
Research Area	Cell Biology
Source	E.coli
Target Names	Metrnl
Protein Names	Subfatin
Expression Region	46-311aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	33.8 kDa

Protein Length	Full Length of Mature Protein

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Constructing a plasmid encoding the Rat Metrnl protein (46-311aa) initiates the general approach for generating the recombinant Rat Metrnl protein. Transformation of the plasmid into e.coli cells obtains the plasmid-containing e.coli cells, which are cultured and induced for protein expression. A N-terminal 6xHis tag is fused to the protein. Subsequently, the protein is purified through affinity purification, and SDS-PAGE analysis is undertaken to confirm the presence and assess the purity of the protein. The protein's purity exceeds 85%.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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