

METRNL/Meteorin-like Protein, Mouse (His)

Cat. No.:	HY-P71617
Synonyms:	MetrnIMeteorin-like protein; Subfatin
Species:	Mouse
Source:	E. coli
Accession:	Q8VE43 (Q46-E311)
Gene ID:	210029
Molecular Weight:	30-33 kDa

PROPERTIES

AA Sequence	<p>Q Y S S D L C S W K G S G L T R E A R S K E V E Q V Y L R C S A G S V E W M Y P</p> <p>T G A L I V N L R P N T F S P A Q N L T V C I K P F R D S S G A N I Y L E K T G</p> <p>E L R L L V R D I R G E P G Q V Q C F S L E Q G G L F V E A T P Q Q D I S R R T</p> <p>T G F Q Y E L M S G Q R G L D L H V L S A P C R P C S D T E V L L A I C T S D F</p> <p>V V R G F I E D V T H V P E Q Q V S V I Y L R V N R L H R Q K S R V F Q P A P E</p> <p>D S G H W L G H V T T L L Q C G V R P G H G E F L F T G H V H F G E A Q L G C A</p> <p>P R F S D F Q R M Y R K A E E M G I N P C E I N M E</p>
Biological Activity	Measured in a cell proliferation assay using SH-SY5Y cells. The ED ₅₀ of this effect is 0.193 µg/mL, corresponding to a specific activity is 5.18×10 ³ units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, 6% Trehalose, pH 7.4 or PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	METRNL/Meteorin-like Protein is a hormone that is induced following exercise or cold exposure, playing a role in promoting energy expenditure. It is produced in skeletal muscle after exercise and in adipose tissue following cold exposure, and can be found in the circulation. METRNL stimulates energy expenditure by promoting browning of white fat depots and
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improving glucose tolerance. Interestingly, it does not directly act on adipocytes to increase thermogenic gene programs, but rather stimulates various immune cell subtypes to enter the adipose tissue and activate their prothermogenic actions. METRNL also facilitates an eosinophil-dependent increase in IL4 expression and promotes alternative activation of adipose tissue macrophages, which is crucial for the increased expression of thermogenic and anti-inflammatory gene programs in fat. Additionally, METRNL is essential for certain cold-induced thermogenic responses, suggesting its involvement in metabolic adaptations to cold temperatures.

Caution: Product has not been fully validated for medical applications. For research use only.

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