METRNL/Meteorin-like Protein, Human (His-SUMO)

Cat. No.:	HY-P71569
Synonyms:	Meteorin like glial cell differentiation regulator; Meteorin; glial cell differentiation regulator like; Meteorin-like protein; METRL_HUMAN; Metrnl
Species:	Human
Source:	E. coli
Accession:	Q641Q3 (46Q-311D)
Gene ID:	284207
Molecular Weight:	Approximately 46.0 kDa

PROPERTIES

AA Sequence	Q Y S S D R C S W K G S G L T H E A H R K E V E Q V Y L R C A A G A V E W M Y P T G A L I V N L R P N T F S P A R H L T V C I R S F T D S S G A N I Y L E K T G E L R L L V P D G D G R P G R V Q C F G L E Q G G L F V E A T P Q Q D I G R R T T G F Q Y E L V R R H R A S D L H E L S A P C R P C S D T E V L L A V C T S D F A V R G S I Q Q V T H E P E R Q D S A I H L R V S R L Y R Q K S R V F E P V P E G D G H W Q G R V R T L L E C G V R P G H G D F L F T G H M H F G E A R L G C A P R F K D F Q R M Y R D A Q E R G L N P C E V G T D
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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 induced in response to hormonal changes triggered by exercise or exposure to cold, contributing to enhanced energy expenditure. Its expression is observed in skeletal muscle post-exercise and adipose tissue during cold exposure, and it circulates in the bloodstream. METRNL/Meteorin-like protein facilitates energy expenditure by promoting the browning of white fat depots and improving glucose tolerance. Interestingly, its thermogenic effects are not directly exerted on adipocytes but involve the stimulation of various immune cell subtypes. It induces an eosinophil-dependent increase in IL4 expression and facilitates the alternative activation of adipose tissue macrophages, crucial for the

enhanced expression of thermogenic and anti-inflammatory gene programs in fat. METRNL/Meteorin-like protein is essential for certain cold-induced thermogenic responses, highlighting its role in metabolic adaptations to low temperatures.

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