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METRNL ELISA Kit





Overview

Target:

Alternative Name:

Quantity:	96 tests
Target:	METRNL
Binding Specificity:	AA 46-311
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Application:	ELISA
Product Details	
Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse Meteorin-like/METRNL
Brand:	PicoKine™
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	Expression system for standard: NSO
	Immunogen sequence: Q46-E311
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Characteristics:	Tissue Specificity: Highly expressed in subcutaneous adipose tissue
Target Details	

METRNL

Metrnl (METRNL Products)

Background:

Protein Function: 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.

Background: METRNL (Meteorin-like) is a cytoplasmic 30 kDa (predicted) member of the meteorin family of proteins. It is expressed by neurons, and appears to function as a primer molecule that sets the stage for either cell differentiation or neurite outgrowth when it acts with Dclk1 and SerpinB1. In mice, exogenously elevated circulating Metrnl increased whole-body energy expenditure and improved glucose tolerance following diet-induced obesity. It also induced expression of antiinflammatory genes, leading to alternative activation of macrophages in adipose tissue and to browning of white fat depots. Metrnl did not appear to activate thermogenic genes directly, but it stimulated eosinophils and macrophages to enter adipose tissue and take their specific thermogenic actions. Blockade of cytokine signaling eliminated Metrnl-induced changes in gene expression required for alternative macrophage activation and blunted expression of beige fat thermogenic and beta-oxidation genes. It is concluded that METRNL is a hormone that influences energy expenditure and thermogenic programs in adipose tissue.

Synonyms: Meteorin-like protein, Subfatin, Metrnl,

Full Gene Name: Meteorin-like protein

Cellular Localisation: Secreted.

UniProt:

08VE43

Application Details

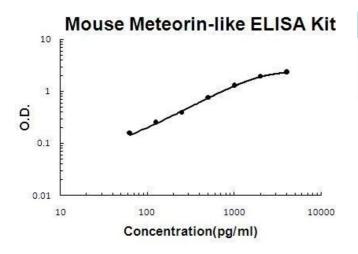
Plate: Pre-coated

Restrictions: For Research Use only

Handling

Storage:	4 °C,-20 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles(Shipped with wet ice.)
Expiry Date:	12 months

Images



ELISA

Image 1. Mouse Meteorin-like/METRNL PicoKine ELISA Kit standard curve