Recombinant Mouse RETN Protein(Trx Tag)

Catalog Number: PDEM100129

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

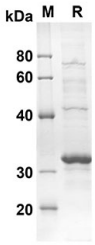
Description

Species	Mouse
Source	E.coli-derived Mouse RETN proteins Ser21-Ser114, with an N-terminal Trx
Calculated MW	30.2 kDa
Observed MW	33 kDa
Accession	Q99P87
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Mouse RETN proteins, 2 μg/lane of Recombinant Mouse RETN proteins was resolved with an SDS-PAGE under reducing conditions, showing bands at 30.2KD

Background

Resistin, also known as adipocyte-specific secretory factor (ADSF) and found in inflammatory zone 3 (FIZZ3), is a member of a family of secreted cysteine-rich peptide hormones that also includes Resistin-like molecules RELM alpha, beta, and gamma. These molecules play important roles in inflammation, glucose metabolism, and insulin resistance. Mature Mouse Resistin is a 12 kDa protein with an N-terminal alpha-helical domain and a C-terminal beta-sandwich domain that is stabilized by multiple intrachain disulfide bonds. Resistin circulates as noncovalent trimers and disulfide-linked hexamers, with an the trimeric form showing greater bioactivity. Resistin can also form multimers with an RELM beta. Mature Mouse Resistin shares 56% and 72% amino acid (aa) sequence identity with an Human and rat Resistin, respectively. It shares 34%-42% aa sequence identity with an Mouse RELM alpha, beta, and gamma. In rodents, Resistin is expressed by adipocytes and in the pituitary and arcuate nucleus of the hypothalamus. It is upregulated during adipogenesis, in obesity, and by insulin or a high carbohydrate diet. This is in contrast to Human Resistin which is produced by macrophages and monocytes but not by adipocytes. Mouse Resistin induces proinflammatory molecule production in adipocytes and promotes hepatic gluconeogenesis and insulin resistance. Human Resistin promotes lipolysis by Human and Mouse adipocytes, but Mouse Resistin does not promote lipolysis by adipocytes of either species. Both Mouse and Human Resistin promote vascular endothelial cell sprouting in vitro and inflammatory reactions in vivo.