Recombinant Rat CXCL16 Protein(Trx Tag)

Catalog Number: PDER100127

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

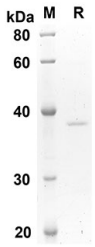
Description

Species	Rat
Source	E.coli-derived Rat CXCL16 protein Asn27-Ala198, with an N-terminal Trx
Calculated MW	38.8 kDa
Observed MW	39 kDa
Accession	Q6AXU5
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 Rat CXCL16 proteins , 2μg/lane of Recombinant Rat CXCL16 proteins was resolved with SDS-PAGE under reducing conditions , showing bands at 39 KD

Background

C-X-C motif chemokine 16 , also known as Small-inducible cytokine B16 , SR-PSOX , and CXCL16 , is a single-pass type I membrane protein which belongs to the intercrine alpha (chemokine CxC) family. CXCL16 exists in transmembrane and soluble forms. The transmembrane form acts as a scavenger receptor for oxidised LDL whereas the soluble form acts a chemoattractant for mainly CD8+ T cells. CXCL16 is a protein which shares pattern recognition receptor functions , relevant for adhesion and phagocytosis of bacterial products , with the properties of an adhesion molecule and inflammatory chemokine. CXCL16/SR-PSOX is an interferon-gamma-regulated chemokine and scavenger receptor for oxidized low-density lipoprotein that is expressed in atherosclerotic lesions. Proteolytic cleavage of membrane-bound CXCL16 releases soluble CXCL16 , which may promote migration of effector T cells and augment a proatherogenic inflammatory response. CXCL16/SR-PSOX can be a potential player in atherogenesis. Enhanced expression of CXCL16 has been demonstrated in atherosclerotic plaques and several properties have been attributed to CXCL16 that could influence the atherosclerotic process. Following in vitro studies suggested that as an adhesion molecule CXCL16/SR-PSOX might mediate T-cell adhesion to the endothelium , as a chemokine-drive T-cell migration , stimulate cell proliferation and elicit inflammatory phenotype in smooth muscle cells (SMC) and , finally , as a scavenger receptor-mediate uptake of atherogenic lipoproteins by macrophages and SMC. CXCR6 and its ligand CXCL16 in regulating metastasis and invasion of cancer. CXCR6 and CXCL16 are up-regulated in multiple cancer tissue types and cancer cell lines relative to normal tissues and cell lines. In addition , both CXCR6 and CXCL16 levels increase as tumor malignancy increases. Thus , CXCL16 and CXCR6 may mark cancers arising in an inflammatory milieu and mediate pro-tumorigenic effects of inflammation through direct effects on cancer cell growth and by inducing the migration and proliferation of tumor-associated leukocytes.