Recombinant Human MMP16 protein (His Tag)

Catalog Number: PDEH101036

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

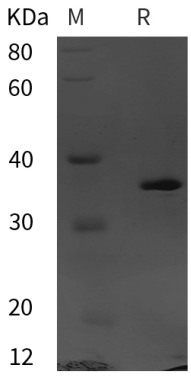
Description

Species	Human
Mol_Mass	32.9 kDa
Accession	P51512
Bio-activity	Not validated for activity

Properties

Purity	> 95% 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



> 95 % as determined by reducing SDS-PAGE.

Background

Matrix metalloproteinases (MMPs) are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix (ECM). MMP-16 (MT3-MMP) is found in brain, lung, placenta, smooth muscle cells, and malignant tumor tissues including oral melanoma and renal carcinoma . MMP-16 has been shown to activate proMMP-2 and degrade various ECM components including native collagens. MMP-16 has been proposed to possess the potential to directly enhance the growth and invasiveness of cells in vivo, two critical processes for development and carcinogenesis . Structurally, MMP-16 consists of the following domains: a pro domain containing the furin cleavage site, a catalytic domain containing the zinc-binding site, a hinge region, a hemopexin-like domain, a transmembrane domain, and a cytoplamasic tail . The structure of the catalytic domain in complex with a hydroxamate inhibitor has been solved . The rhMMP-16PC consists of the pro and catalytic domains, which can be activated by treatment with furin.

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