

# Recombinant Human C-terminal Hemopexin-like domain of MMP-2

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> PRO-360
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### ➤ **Background:**

PEX can block angiogenesis and tumor growth in vivo, providing a potentially novel therapeutic approach for diseases associated with neovascularization. The appearance of PEX at sites of neovascularization may not only control normal angiogenesis, but when administered in sufficient quantities, may provide a naturally-occurring therapeutic inhibitor of diseases associated with angiogenesis.

### ➤ **Description :**

Recombinant Human PEX (C-Terminal Fragment of Human Matrix Metalloproteinase-2, MMP-2) which comprises C-terminal hemopexin-like domain (amino acids 445-635), Recombinant Human PEX is a noncatalytic Metalloproteinase Fragment with Integrin Binding Activity and can inhibit cell associated collagenolytic activity both in vitro and in vivo. PEX is expressed as inclusion body in E. coli and subsequently refolded in vitro to get biological activity.

Recombinant PEX is purified by proprietary chromatographic techniques.

### ➤ **Physical Appearance:**

Sterile Filtered White Lyophilized (freeze-dried) powder.

### ➤ **Formulation:**

Recombinant PEX was lyophilized from a concentrated (1mg/ml) solution of 0.5X PBS pH-7.4

### ➤ **Solubility:**

It is recommended to reconstitute the lyophilized PEX in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### ➤ **Stability:**

Lyophilized PEX although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution PEX should be stored at 4 C between 2-7 days and for future use below -18 C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please avoid freeze-thaw cycles.**

➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained.

➤ **Amino-Acid Sequence :**

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Phe-Ser-Gly-Ser.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

The bioactivity was measured by HMEC cell line, PEX can inhibit the transmembrane activity of HMEC under the stimulation of VEGF.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of PEX.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm .

2. Analysis by RP-HPLC, using a calibrated solution of PEX as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.