



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Recombinant Human Prouroguanylin

Catalog No.
228-10593

Source:
Escherichia Coli.

Synonyms

Guanylate cyclase activator 2B, UGN, GCAP-II, GUCA2B.

Introduction

Prouroguanylin is a 112-amino-acid prohormone precursor of uroguanylin- mature biologically active 16-amino-acid peptide cleaved from its C-terminus. Guanylin binds to receptor-guanylate cyclases (CG-C) resulting in increased intracellular cGMP levels leading to CFTCR (Cystic Fibrosis Transmembrane Conductance Regulator) activation and subsequent rise in fluid and electrolyte secretion into the lumen. Prouroguanyline knock-out mice showed impaired renal excretion of external NaCl leading to elevated blood pressure independent of the level of dietary salt intake.

Prouroguanylin is the predominant circulating molecular form found in circulation and in biological fluids.

Description

Prouroguanylin Human Recombinant is 10 kDa protein containing 88 amino acid residues of the human prouroguanylin and 2 additional amino acid residues.

GPVYIQYQGF RVQLES MKKL SDLEAQWAPS PRLQAQSLLP AVCHHPALPQ DLQPVCASQE
ASSIFKTLRT IANDDCELCV NVACTGCL

The Prouroguanylin is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Sterile filtered and lyophilized from 0.5 mg/ml in 50mM Phosphate buffer pH-7.4.

Specificity

The recombinant sequence is 100% homologous to the native human sequence.

Purification Method

Three-step procedure using IMAC and size exclusion chromatography before and after refolding.

Solubility

Add 0.2 ml of deionized H₂O and let the lyophilized pellet dissolve completely.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Purity

Greater than 95.0% as determined by

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated thaw-freeze cycles and store at -80°C. Reconstituted protein can be stored at 4°C for a limited period of time. The lyophilized protein remains stable until the expiry date when stored at -20°C.

Applications

Western blotting, ELISA.

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