

Recombinant Human Guanylate Cyclase Activator 2B (Uroguanylin)

Cat. No. GUCA2B-127H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Prouroguanylin produced in <i>E.coli</i> is 10 kDa protein containing 88 amino acid residues of the human prouroguanylin and 2 additional amino acid residues. Three-step procedure using IMAC and size exclusion chromatography before and after refolding.
Species	Human
Source	<i>E.coli</i>
Description	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.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Form	Sterile filtered and lyophilized from 0.5 mg/ml in 50mM Phosphate buffer pH-7.4.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by

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	SDS-PAGE.
Specificity	The recombinant sequence is 100% homologous to the native human sequence.
Applications	Western blotting, ELISA.
Solubility	Add 0.2 ml of deionized H ₂ O and let the lyophilized pellet dissolve completely.
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.

GENE INFORMATION

Gene Name	GUCA2B guanylate cyclase activator 2B (uroguanylin) [Homo sapiens]
Synonyms	GUCA2B; guanylate cyclase activator 2B (uroguanylin); UGN; GCAP-II; guanylate cyclase activator 2B; uroguanylin; OTTHUMP00000007927; uroguanylin; Guanylate cyclase C-activating peptide 2; Guanylate cyclase C-activating peptide II
Gene ID	2981
mRNA Refseq	NM_007102
Protein Refseq	NP_009033
MIM	601271
UniProt ID	Q16661

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Chromosome Location	1p34-p33
Function	calcium sensitive guanylate cyclase activator activity; enzyme activator activity

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