

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> 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	E.coli
Description	<p>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.</p> <p>Prouroguanyline knock-out mice showed impaired renal excretion of external NaCl leading to elevated blood pressure independent of the level of dietary salt intake.</p> <p>Prouroguanylin is the predominant circulating molecular form found in circulation and in biological fluids.</p>
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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