

Recombinant Human GUCA2A

Cat. No. GUCA2A-3703H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Total 98 AA. MW: 11 kDa (calculated). 96 AA of the recombinant human Proguanylin and two N-Terminal extra AA (highlighted).
Species	Human
Source	E.coli
Description	GUCA2A is a 15 amino acid polypeptide that is secreted by goblet cells in the colon. Guanylin acts as an agonist of the guanylyl cyclase receptor GC-C and regulates electrolyte and water transport in intestinal and renal epithelia. Upon receptor binding, guanylin increases the intracellular concentration of cGMP, induces chloride secretion and decreases intestinal fluid absorption, ultimately causing diarrhoea. The peptide stimulates the enzyme through the same receptor binding region as the heat-stable enterotoxins.
Form	Filtered (0, 4 µm) and lyophilized in 0.5 mg/mL in deionized H ₂ O.
Research topic	Energy metabolism and body weight regulation
Purity	>95%
Reconstitution	Add deionized water to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

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Applications	Western blotting
Quality Control Test	BCA to determine quantity of the protein; SDS PAGE to determine purity of the protein
Sequences of amino acids	GPVTVQDGNF SFSLESVKKL KDLQEPQEPR VGKLRNFAP I PGEPVVPILC SNPNFPEELK PLCKEPNAQE ILQRLEEIAE DPGTCEICAY AACTGC
Storage	Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.

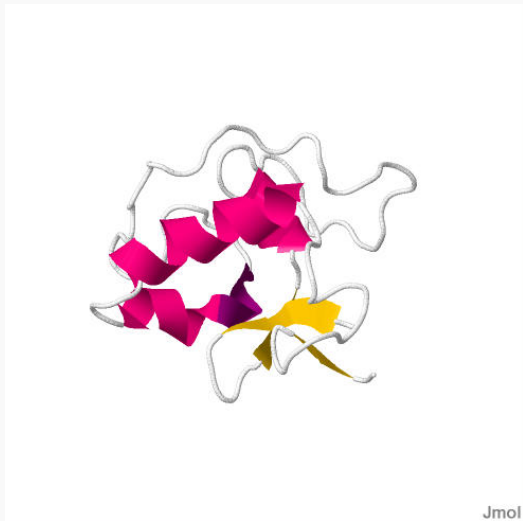
GENE INFORMATION

Gene Name	GUCA2A guanylate cyclase activator 2A (guanylin) [Homo sapiens]
Official Symbol	GUCA2A
Synonyms	GUCA2A; guanylate cyclase activator 2A (guanylin); GUCA2; STARA; GCAP-I; guanylin; OTTHUMP00000007926; guanylate cyclase-activating protein 1; guanylate cyclase-activating protein I; guanylate cyclase activator 2A (guanylin 2, intestinal, heat-stable)
Gene ID	2980
mRNA Refseq	NM_033553
Protein Refseq	NP_291031

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MIM	139392
UniProt ID	Q02747
Chromosome Location	1p35
Pathway	Myometrial Relaxation and Contraction Pathways
Function	guanylate cyclase activator activity; hormone activity
GUCA2A	 Jmol