Recombinant Human NPR1 Protein, His-tagged

Cat. No. NPR1-2503H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human NPR1 Protein (Asn34-Glu473) with a N-His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Asn34-Glu473
Description	Guanylyl cyclases, catalyzing the production of cGMP from GTP, are classified as soluble and membrane forms (Garbers and Lowe, 1994 [PubMed 7982997]). The membrane guanylyl cyclases, often termed guanylyl cyclases A through F, form a family of cell-surface receptors with a similar topographic structure: an extracellular ligand-binding domain, a single membrane-spanning domain, and an intracellular region that contains a protein kinase-like domain and a cyclase catalytic domain. GC-A and GC-B function as receptors for natriuretic peptides; they are also referred to as atrial natriuretic peptide receptor A (NPR1) and type B (NPR2; MIM 108961). Also see NPR3 (MIM 108962), which encodes a protein with only the ligand-binding transmembrane and 37-amino acid cytoplasmic domains. NPR1 is a membrane-bound guanylate cyclase that serves as the receptor for both atrial and brain natriuretic peptides (ANP (MIM 108780) and BNP (MIM 600295), respectively).
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 52.5 kDa

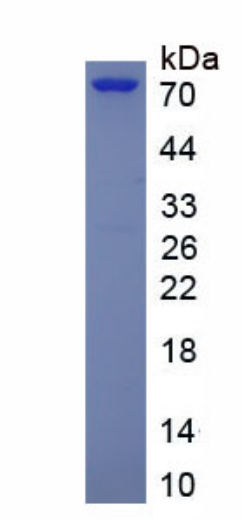
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	Accurate Molecular Mass: 53 kDa
Endotoxin	<1.0 EU per 1μg (determined by the LAL method).
Purity	> 97%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	NPR1 natriuretic peptide receptor A/guanylate cyclase A (atrionatriuretic peptide receptor A) [Homo sapiens (human)]
Official Symbol	NPR1
Synonyms	NPR1; natriuretic peptide receptor A/guanylate cyclase A (atrionatriuretic peptide receptor A); ANPRA, NPRA; atrial natriuretic peptide receptor 1; ANPa; GUCY2A;

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	GC-A; ANP-A; NPR-A; ANPR-A; guanylate cyclase A; natriuretic peptide receptor A; atrionatriuretic peptide receptor A; natriuretic peptide A type receptor; atrial natriuretic peptide receptor type A; NPRA; ANPRA; GUC2A;
Gene ID	4881
mRNA Refseq	NM_000906
Protein Refseq	NP_000897
MIM	108960
UniProt ID	P16066
	

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