

Recombinant Human NPR1 Protein, His-tagged

Cat. No. NPR1-1299H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human NPR1 Protein (NP_000897.3)(33-473aa) was expressed in yeast with N-terminal His tag.
Species	Human
Source	Yeast
ProteinLength	33-473aa
Description	<p>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).</p>
Form	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol.

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If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Molecular Mass 50.4kDa

AA Sequence

GNLTVAVVLPLANTSYPWSWARVGAPELALAQVKARPDLLPGWTVRTVLGSSENA
 LGVCSDTAAPLAAVDLKWEHNPAVFLGPGCVYAAAPVGRFTAHRVPLLTAGAPAL
 GFGVKDEYALTTRAGPSYAKLGDFVAALHRRLGWERQALMLYAYRPGDEEHCFLL
 VEGLFMRVRDRLNITVDHLEFAEDDLSHYTRLLRTMPRKGRVIYICSSPDAFRTLMLL
 ALEAGLCGEDYVFFHLDIFGQSLQGGQGPAPRRPWERGDDGQDVSARQAFQAAKIIT
 YKDPDNPEYLEFLKQLKHLAYEQFNFTMEDGLVNTIPASFHDGLLLYIQAVTETLAHG
 GTVTDGENITQRMWNRSFQGVGTGYLKIDSSGDRETFSLWDMDPENGAFRVVLNY
 NGTSQELVAVSGRKLNWPLGYPPPDIPKCGFDNEDPACNQDHLSTLE

Purity Greater than 90% as determined by SDS-PAGE.

Notes Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Storage Store at -20°C upon receipt, aliquoting is necessary for multiple use. Avoid repeated freeze-thaw cycles.

Reconstitution We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

GENE INFORMATION

Gene Name [NPR1 natriuretic peptide receptor A/guanylate cyclase A \(atrionatriuretic peptide\)](#)

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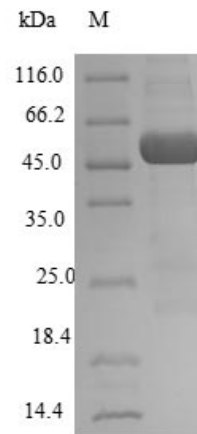
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receptor A) [Homo sapiens]

Official Symbol	NPR1
Synonyms	ANPa; NPRA; ANPRA; GUC2A; GUCY2A
Gene ID	4881
mRNA Refseq	NM_000906.3
Protein Refseq	NP_000897.3
MIM	108960
UniProt ID	P16066

SDS-PAGE



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