

## Product datasheet for PH309267

### Natriuretic Peptide Receptor A (NPR1) (NM\_000906) Human Mass Spec Standard

#### Product data:

|                                       |  |
|---------------------------------------|--|
| Product Type:                         | Mass Spec Standards  |
| Description:                          | NPR1 MS Standard C13 and N15-labeled recombinant protein (NP_000897) |
| Species:                              | Human  |
| Expression Host:                      | HEK293   |
| Expression cDNA Clone or AA Sequence: | RC209267   |
| Predicted MW:                         | 119 kDa  |
| Protein Sequence:                     | >RC209267 protein sequence<br>Red=Cloning site Green=Tags(s)         |

MPGPRRPAQSRLRLLLLLLLLPPLLLLLRGSHAGNLTVAVVLPLANTSYPWSWARVGPVELALAQVKARP  
DLLPGWTVRTLGSSENALGVCSDTAAPLAAVDLKWEHNPVFLGPGCVYAAAPVGRFTAHRVPLLTAG  
APALGFVYKDEYALTTTRAGPSYAKLGDFVAALHRRLGWERQALMLYAYRPGDEEHCFVLEGLFMRVDR  
LNITVDHLEFAEDDL SHYTRLLRTPRKGRVIYICSSPDFAFRTMLLALAEAGLCGEDYVFFHLDIFGQSL  
QGGQGPAPRRPWERGQDVSARQAFQAAKIITYKDPDNPEYLFKQLKHLAYEQFNFTMEDVLVNTIP  
ASFHDGLLLYIQAVTETLAHGGTVDGENITQRMWNRSGVGTGYLKIDSSGDRETDVSLWMDPENGAF  
RVVNLNYNGTSQELVAVSGRKLNWPLGYPPDIPKCGFDNEDPACNQDHLSTLEVLALVGSLSLLGILIVS  
FFIYRKMQLKELASELWRVRWEDVEPSSLERHLRSAGSRLTSGRGSNYGSLLTTEGQFQVFAKTAYYK  
GNLVAVKRVNRKRIELTRKVL FELKHMRDVQNEHLTRFVGACTDPPNICILTEYCPRGSQDILENESIT  
LDWMFRYSLTNDIVKGMFLHNGAICSHGNLKSNCVVDGRFVLKITDYGLESFRLDPEQGHTVYAKKL  
WTAPELLRMASPPVRSQAGDVYSFGIILQEIALRSGVFHVEGLDLSPKEIIEVTRGEQPPFRPSLALQ  
SHLEELGLLMQRCWAEDPQERPPFQQIRLTLRKFNRNENSNILDNLLSRMEQYANNLEELVEERTQAYLE  
EKRAEALLYQILPHSVAEQKRGETVQAEAFDSVTIYFSDIVGFTALSAESTPMQVVTLLNDLYTCFDA  
VIDNFDVYKVETIGDAYMVVSGLPVRNRLHACEVARMALALLDAVRSFRIRHRPQEQLRLRIGIHTGPV  
CAGVVGLKMPRYCLFGDVTNTASRMESNGEALKIHLSSSETKAVLEEFGGFELELRGDVEMKGGKVRTYV  
LLGERGSSTRG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

|                  |  |
|------------------|--|
| Tag:             | C-Myc/DDK  |
| Purity:          | > 80% as determined by SDS-PAGE and Coomassie blue staining  |
| Concentration:   | >0.05 µg/µL as determined by microplate BCA method   |
| Labeling Method: | Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine |
| Buffer:          | 25 mM Tris-HCl, 100 mM glycine, pH 7.3   |



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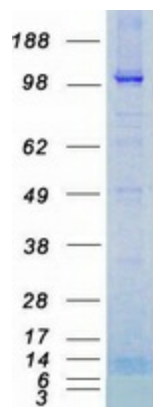
|                      |  |
|----------------------|--|
| <b>Storage:</b>      | Store at -80°C. Avoid repeated freeze-thaw cycles.   |
| <b>Stability:</b>    | Stable for 3 months from receipt of products under proper storage and handling conditions. |
| <b>RefSeq:</b>       | <a href="#">NP_000897</a>  |
| <b>RefSeq Size:</b>  | 4201   |
| <b>RefSeq ORF:</b>   | 3183   |
| <b>Synonyms:</b>     | ANPa; ANPRA; GUC2A; GUCY2A; NPRA   |
| <b>Locus ID:</b>     | 4881   |
| <b>UniProt ID:</b>   | <a href="#">P16066</a> , <a href="#">A0A140VJE6</a>  |
| <b>Cytogenetics:</b> | 1q21.3   |

**Summary:** 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).[supplied by OMIM, May 2009]

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Purine metabolism, Vascular smooth muscle contraction

### Product images:



Coomassie blue staining of purified NPR1 protein (Cat# [TP309267]). The protein was produced from HEK293T cells transfected with NPR1 cDNA clone (Cat# [RC209267]) using MegaTran 2.0 (Cat# [TT210002]).