# HUMAN NPR1 PROTEIN, HFC TAG

**Cat.#:** 11789

**Product Name:** Human NPR1 Protein

**Size :** 10 μg, 50 μg and 100 μg

**Synonyms:** ANP-A;ANPR-A;ANPRA;NPR-A;GC-A

**Target:** NPR1

**UNIPROT ID:** P16066

**Description:** Recombinant human NPR1 protein with C-terminal human Fc tag

**Background:** 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]

**Species/Host:** HEK293

**Molecular Weight:** The protein has a predicted molecular mass of 75.0 kDa after removal of the signal peptide. The apparent molecular mass of NPR1-hFc is approximately 95-130 kDa due to glycosylation.

**Molecular Characterization:** NPR1(Gly33-Glu473) hFc(Glu99-Ala330)

**Purity:** The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

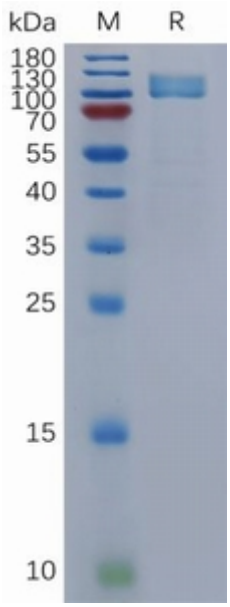


Figure 1. Human NPR1 Protein, hFc Tag on SDS-PAGE under reducing condition.