

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Pro-BNP in direct ELISAs. Does not detect BNP-32 (aa 103-134).
Source	Monoclonal Rat IgG _{2B} Clone # 370124
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human BNP His27-His134 Accession # P16860
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

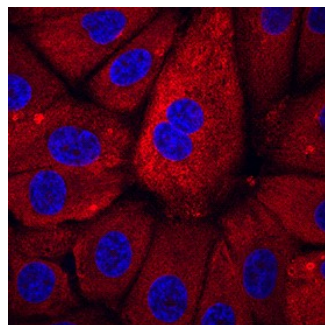
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Human Pro-BNP
Immunocytochemistry	8-25 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below

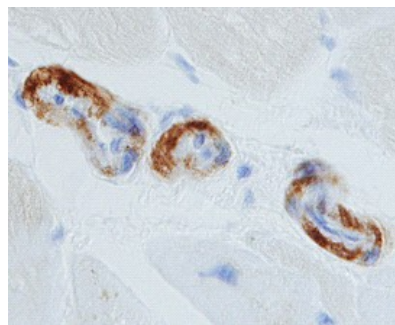
DATA

Immunocytochemistry



BNP in BG01V Human Cells. BNP was detected in immersion fixed BG01V human embryonic stem cells using Rat Anti-Human Pro-BNP Monoclonal Antibody (Catalog # MAB36041) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunohistochemistry



Pro-BNP in Human Heart. Pro-BNP was detected in immersion fixed paraffin-embedded sections of human heart using 25 µg/mL Rat Anti-Human Pro-BNP Monoclonal Antibody (Catalog # MAB36041) overnight at 4 °C. Tissue was stained with the Anti-Rat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). Specific labeling was localized to endothelial cells in the vasculature. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Brain-type Natriuretic Peptide (BNP) is a nonglycosylated peptide that is produced predominantly by ventricular myocytes and belongs to the natriuretic peptide family. Proteolytic cleavage of the 12 kDa BNP precursor gives rise to N-terminal Pro-BNP (NT-proBNP) and mature BNP. Plasma NT-proBNP is a marker for congestive heart failure, while mature BNP (aa 103-134) promotes vasodilation and fluid and sodium excretion. Human BNP precursor shares 29% and 51% aa sequence identity with mouse and porcine BNP precursor, respectively.