Sandwich Enzyme Immunoassay Kit

NT- Pro BNP 1-76 (Human)

Catalog No: SEK 0170-01

Background:

**Brain natriuretic peptide** (BNP), now known as **B-type natriuretic peptide** (also BNP) or **GC-B**, is a 32 amino acid polypeptide secreted by the ventricles of the heart in response to excessive stretching of heart muscle cells (cardiomyocytes).

BNP is co-secreted along with a 76 amino acid N-terminal fragment (**NT-proBNP**) which is biologically inactive.

Both BNP and NT-ProBNP levels in the blood are used for screening, diagnosis of acute congestive heart failure (CHF) and may be useful to establish prognosis in heart failure, as both markers are typically higher in patients with worse outcome. The plasma concentrations of both BNP and NT-ProBNP are also typically increased in patients with asymptomatic or symptomatic left ventricular dysfunction. There is no level of BNP that perfectly separates patients with and without heart failure. BNP accurately reflects current ventricular status. The half-life of NT-ProBNP is 1 to 2 hours vs. 20 minutes for BNP.

BNP can be elevated in renal failure. BNP is cleared by binding to natriuretic peptide receptors (NPRs) and neutral endopeptidase (NEP). NT-ProBNP is the inactive molecule resulting from cleavage of the prohormone Pro-BNP and is SOLELY reliant on the kidney for excretion. The achilles heal of the NT-ProBNP molecule is the overlap in kidney disease in the heart failure patient population.

Kit application:

SEK Pro BNP 1-76 (human) is a 96 wells ELISA sandwich immunoassay Kit. It can be applied for the analysis of Pro BNP 1-76 (Human) in serum, plasma, or tissue extracts in pharmcokinetics, peptide delivery studies and other purposes.

This kit is for research use only.

**Application Note:** Room Temperature, 3 hours assay, 50ul sample size

**Storage:** 2 – 5 °C
Detection Method: Colorimetric

Range: 0.1 – 1000 ng / ml
ED_{20} 16.7 ng / ml
ED_{80} 64 ng / ml

Specificity:
NT-Pro BNP 1-76 (Human) 100%
BNP 32 (Human) 0%

Typical Data

This standard curve is provided for demonstration only. A standard curve should be generated for each set of samples assayed.