

proNGF Rapid ELISA Kit: Human (2 plates)

Catalogue No.: BEK-2226-2P

Description: The Biosensis proNGF Rapid™ enzyme-linked immunosorbent assay (ELISA) Kit is a sandwich ELISA that allows the quantification of full-length proNGF protein in less than 4 hours in human serum, heparin-plasma, cell supernatants and lysates only if used as directed. Please refer to the kit protocol for specific use instructions for each substrate application.

This ELISA kit consists of a pre-coated anti-proNGF capture antibody, a biotinylated anti-proNGF detection antibody and horseradish peroxidase (HRP)-conjugated streptavidin. The addition of a substrate (3,3',5,5'-tetramethylbenzidine, TMB) yields a colored reaction product which is directly proportional to the concentration of proNGF present in samples and protein standards. A human proNGF positive control (QC sample) is provided to assure consistent assay performance.

This proNGF ELISA kit contains a recombinant human proNGF standard expressed in E.coli. This ELISA kit does not cross-react with the mouse form of proNGF, and due to sequence homology of mouse and rat proNGF is not expected to detect rat proNGF. The antibodies used in this ELISA kit bind epitopes within the pro-domain of the protein and therefore recognize proNGF and the pro-domain peptide, but do not cross-react with mature NGF!

Note that accurate proNGF quantification in human serum requires the addition of Heterophilic Antibody Blocker BL-003-1000 provided in the kit, and available for purchase separately.

This kit has not been tested for other applications. Sufficient amount of proNGF standard is supplied to allow for spike- and recovery experiments in order to validate this ELISA assay for other sample matrices if required. This kit has been configured for research use only and is not to be used in diagnostic or clinical procedures.

Related products: BL-003-1000, Heterophilic antibody blocker: Sample diluent additive for accurate quantification or proNGF in human serum.

Batch No.: Refer to the product label.

Antigen: Nerve growth factor (NGF) is synthesized as a precursor (proNGF) which may be released and have physiological functions to cause cell death. It binds neurotrophin receptor p75 and sortilin and may also be important for the development of nervous system. proNGF is synthesized in target tissues and glia, transported retrogradely and may be released.

Other Names: pro-brain nerve growth factor; proNGF; NGF

Accession: NGF_HUMAN

Specificity: Human. Does not react with mouse proNGF, and is not expected to detect rat proNGF.

Cross-reactivity: Does not cross-react with recombinant human NGF and proBDNF tested at 25 ng/mL.

Storage: Store at 2-8C.

Expiry Date: 12 months from purchase.

FOR RESEARCH USE ONLY

proNGF Rapid ELISA Kit: Human (2 plates)

Specific References: Mossa AH et al. (2020). Imbalance of nerve growth factor metabolism in aging women with overactive bladder syndrome. *World J Urol.* [Epub ahead of print]. Application: Human urine.

Rowe CW et al. (2019). The precursor for nerve growth factor (proNGF) is not a serum or biopsy-rinse biomarker for thyroid cancer diagnosis. *BMC Endocr Disord.* 19(1):128. Application: Human serum.

Stapledon CJM et al. (2019). Human osteocyte expression of Nerve Growth Factor: The effect of Pentosan Polysulphate Sodium (PPS) and implications for pain associated with knee osteoarthritis. *PLoS One.* 14(9):e0222602. Application: Human primary culture supernatant.

Ryu JC et al. (2018). Role of proNGF/p75 signaling in bladder dysfunction after spinal cord injury. *J Clin Invest.* [Epub ahead of print]. Application: Human urine.

Sherif IO & Al-Gayyar MMH (2018). Oleuropein potentiates anti-tumor activity of cisplatin against HepG2 through affecting proNGF/NGF balance. *Life Sci.* [Epub ahead of print]. Application: Human cell culture.

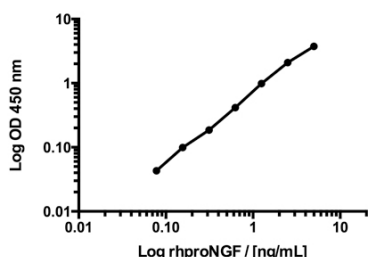
Kit components: The ELISA kit box contains 2 x 96-well pre-coated strip plates, protein standards, QC sample, detection reagents, heterophilic antibody blocker, wash and sample buffers, substrate buffer and detailed protocols.

Range: 0.078 - 5 ng/mL

Sensitivity: Typical limit of detection (LOD) for proNGF is

Kit protocol: Please refer to our online product listing for current protocol/MSDS versions.

MSDS: Please refer to our online product listing for current protocol/MSDS versions.



This standard curve generated in our laboratories is for demonstration purposes only, but can be used as a guide to expected performance. A standard curve should be generated for each assay.

FOR RESEARCH USE ONLY