



NGF Rapid ELISA Kit: Rat, Guinea Pig (2 Plates)

Catalogue No.: BEK-2214-2P

Description: The Biosensis NGF Rapid™ enzyme-linked immunosorbent assay (ELISA) Kit is a sandwich ELISA that allows the quantification of rat NGF in less than 3 hours in cell culture supernatants, serum, and brain extracts only if used as directed. Please refer to the kit protocol for specific use instructions for each substrate application, in particular serum samples.

This ELISA kit consists of a pre-coated mouse monoclonal anti-NGF capture antibody, a biotinylated anti-NGF 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 NGF present in samples and protein standards.

This NGF ELISA kit is designed to measure rat NGF and thus employs a recombinant rat NGF protein. Due to a high degree of NGF sequence homology, the antibodies used in this kit will also detect NGF from other species including human and mouse! Guinea pig NGF has been quantified in serum using this ELISA kit using rat NGF protein as calibrator, as it shows largest sequence homology based on amino acid sequence among rodent and human NGF proteins.

The assay antibodies preferentially detect the mature form of NGF, as shown by data comparing mature mouse NGF and mouse proNGF in the Mouse NGF ELISA kit (BEK-2213). Cross-reaction of full-length proNGF was < 0.1% when assayed at 25 ng/mL in assay buffer, and not detectable when assayed across the mature NGF calibration range.

This kit has not been tested for other applications. It has been configured for research use only and is not to be used in diagnostic or clinical procedures.

Batch No.: Refer to the product label.

Antigen: FUNCTION: Nerve growth factor is important for the development and maintenance of the sympathetic and sensory nervous systems. It stimulates division and differentiation of sympathetic and embryonic sensory neurons. SUBUNIT: Homodimer, associated by non-covalent forces. SUBCELLULAR LOCATION: Secreted protein. SIMILARITY: Belongs to the NGF-beta family.

Other Names: Beta-nerve growth factor; Ngfb

Accession: NGF_RAT

Specificity: Rat

Cross-reactivity: The antibodies used in this ELISA kit bind epitopes within the mature domain of the protein. No cross-reactivity was observed with brain derived neurotrophic factor (BDNF), neurotrophin-3 (NT-3), NT-4/5 and proNGF protein tested at 25 ng/mL in assay buffer. Due to a high degree of NGF sequence homology, the antibodies used in this kit will also detect NGF from other species including human and mouse!

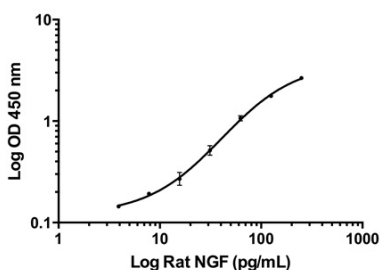
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Mature NGF (27 kDa) and full-length proNGF (50 kDa) were assayed in parallel at equimolar protein concentrations across the NGF ELISA calibration range (3.9-250 pg/mL; 0.14-9.2 pmol/L). OD readings for proNGF were indistinguishable from the assay's blank OD readings. Data was obtained with the Mouse NGF ELISA kit (BEK-2213) which uses the same assay capture and detection antibodies

- Storage:** Store at 4°C
- Expiry Date:** 12 months from purchase.
- Specific References:** Cheppudira BP, Trevino AV, Petz LN, Christy RJ, Clifford JL. (2016) "Anti-nerve growth factor antibody attenuates chronic morphine treatment-induced tolerance in the rat." *BMC Anesthesiol.* 16:73 Application: Acid-extracted rat spinal cord homogenate.
- Kit components:** The ELISA kit box contains 2 x 96 pre-coated strip plates, protein standards, detection reagents, wash and sample buffers and detailed protocols.
- Range:** 3.9 - 250 pg/mL
- Sensitivity:** Typical limit of detection (LOD) for rat NGF is 8 pg/mL determined as 150% of the blank value.
- 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.

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