

Human Brain-Derived Neurotrophic Factor ELISA Kit

Description:

Brain-Derived Neurotrophic Factor (BDNF) is a member of the Nerve Growth Factor family. It is induced by cortical neurons, and is necessary for survival of striatal neurons in the brain. Expression of the *BDNF* gene is reduced in both Alzheimer's and Huntington disease patients. BDNF may play a role in the regulation of stress response and in the biology of mood disorders. It is found in neurons of the central nervous system and is expressed predominantly in hippocampus, cortex, and synapses of the basal forebrain. BDNF selectively supports the survival of primary sensory neurons and retinal ganglia. It supports survival and differentiation of certain cholinergic neurons and also some dopaminergic neurons *in vitro*. The factor inhibits the normal cell death of embryonic chick motor neurons. The Human BDNF ELISA is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human BDNF in serum, plasma, cell culture supernatants and urine. This assay employs an antibody specific for BDNF coated on a 96-well plate. Standards and samples are pipetted into the wells and BDNF present in a sample is bound to the wells by the immobilized antibody. The wells are washed and Biotinylated Anti-Human BDNF antibody is added. After washing away unbound Biotinylated antibody, HRP-Streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of BDNF bound.

Sensitivity:

The minimum detectable dose of BDNF is typically less than 0.3 ng/mL.

Samples:

Serum, plasma, cell culture supernatants and urine.

Recovery:

Serum mean recovery of 95% (range 83-103%) Plasma mean recovery of 93% (range 82-102%) Cell culture media mean recovery of 93% (range 83-103%)

Reagents Included:

1. Microplate 96-wells coated with Capture Antibody
2. Wash Buffer Concentrate (20x)
3. Standards
4. Assay Diluent A: Standard/Sample-Serum/Plasma
5. Assay Diluent B: Standard/Sample-Cell Culture Medium/Urine
6. Biotinylated Detection Antibody
7. HRP-Streptavidin Concentrate
8. TMB One-Step Substrate Reagent

9. Stop Solution

Storage & Stability:

May be stored for up to 6 months at 2-8°C from the date of shipment. Standard should be stored below -20°C (-80°C recommended) after reconstitution. Opened Microplate Wells and reagents may be store for up to 1 month at 2-8°C. Return unused wells to the pouch containing desiccant pack, reseal along entire edge of zip seal.

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

Reproducibility: Intra-Assay: CV<10%; Inter-Assay: CV<12%

Catalog No. CKH121

Quantity: 1 x 96 tests

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