



Human Neurogranin(NRGN) ELISA kit

Product Code	CSB-EL016081HU
Abbreviation	NRGN
Uniprot No.	Q92686
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Neuroscience
Quality Control	A microplate reader capable of measuring absorbance at 450 nm, with the correction wavelength set at 540 nm or 570 nm. An incubator can provide stable incubation conditions up to 37°C±5°C. Centrifuge Vortex Squirt bottle, manifold dispenser, or automated microplate washer Absorbent paper for blotting the microtiter plate 50-300ul multi-channel micropipette Pipette tips Single-channel micropipette with different ranges 100ml and 500ml graduated cylinders Deionized or distilled water Timer Test tubes for dilution
Gene Names	NRGN
Tag Info	quantitative
Protein Description	Sandwich
Component	A micro ELISA plate --- The 96-well plate has been pre-coated with an anti-human NRGN antibody. This dismountable microplate can be divided into 12 x 8 strip plates. Two vials lyophilized standard ---Dilute a bottle of the standard at dilution series, read the OD values, and then draw a standard curve. One vial Biotin-labeled NRGN antibody (100 x concentrate) (120 µl/bottle) ---Act as the detection antibody. One vial HRP-avidin (100 x concentrate) (120 µl/bottle) ---Bind to the detection antibody and react with the TMB substrate to make the solution chromogenic. One vial Biotin-antibodyDiluent (15 ml/bottle) ---Dilute the Biotin-antibody. One vial HRP-avidin Diluent (15 ml/bottle) ---Dilute the HRP-avidin solution.



One vial Sample Diluent (50 ml/bottle)---Dilute the sample to an appropriate concentration.

One vial Wash Buffer (25 x concentrate) (20 ml/bottle) ---Wash away unbound or free substances.

One vial TMB Substrate (10 ml/bottle) ---Act as the chromogenic agent. TMB interacts with HRP, eliciting the solution turns blue.

One vial Stop Solution (10 ml/bottle) ---Stop the color reaction. The solution color immediately turns from blue to yellow.

Four Adhesive Strips (For 96 wells) --- Cover the microplate when incubation.

An instruction manual

Description

CUSABIO's Neurogranin(NRGN) ELISA kit is specifically designed and validated for the quantitative detection of NRGN in the serum, plasma, or tissue homogenates. It is not intended for diagnostic use. This assay kit was designed and optimized for neuroscience research use in humans. The kit has been validated with excellent sensitivity, high specificity, precision less than 10%, good linearity, high recovery, and tiny inter-batch differences. Refer to the product instructions for more details.

This assay employs the quantitative sandwich enzyme immunoassay technique, in which NRGN in the samples or standards are sandwiched between pre-coated NRGN antibody and Biotin-conjugated NRGN antibody. HRP-avidin is then added into the wells. Following a wash to remove any unbound reagent, the TMB substrate solution is added to the wells and color develops in proportion to the amount of NRGN bound in the initial step. The color development is stopped upon adding the stop solution, and the intensity of the color is measured at 450 nm via a microplate reader. The levels of NRGN in the samples can be determined by referring to the O.D. (optical density) of the samples to the standard curve.

NRGN is a small neuronal protein present mainly in the cell body and dendrites. It primarily seems to regulate calmodulin (CaM) signal transduction pathways of CaM-dependent enzymes to enhance synaptic plasticity in long-term potentiation (LTP). Keeping NRGN concentrations in a normal range in neurons is essential for proper cognition, while a reduction of NRGN upon aging and degenerative diseases may lead to negative cognitive symptoms. Increased levels of NRGN has been detected in the cerebrospinal fluid (CSF) of patients with Alzheimer's disease (AD).

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