Human Neurogranin (NRGN) ELISA Kit

Sandwich ELISA for human Neurogranin (NRGN), a postsynaptic protein involved in synaptic plasticity and a research biomarker of synaptic dysfunction in Alzheimer's disease and other neurodegenerative conditions.

The **Human Neurogranin (NRGN) ELISA Kit** is a quantitative sandwich immunoassay for detection of human Neurogranin in serum, plasma, tissue homogenates, and cell lysates. Neurogranin is a calmodulin-binding postsynaptic protein whose levels reflect synaptic integrity — most prominently elevated in Alzheimer's disease, with emerging evidence of elevation in frontotemporal dementia as well.

Neurogranin (NRGN) is a small postsynaptic protein that binds calmodulin and regulates calcium-dependent signaling and synaptic plasticity. It is highly expressed in the dendritic spines of hippocampal and cortical neurons. Cerebrospinal fluid (CSF) neurogranin is frequently elevated in Alzheimer's disease (AD), reflecting postsynaptic injury and synaptic degeneration. Elevations have also been reported in other neurodegenerative conditions, including frontotemporal lobar degeneration, although levels and clinical associations vary by disease and study. CSF neurogranin is being investigated as a complementary biomarker of synaptic injury and disease progression alongside established AD biomarkers, including the Aβ42/Aβ40 ratio, total tau, and phosphorylated tau.

Ordering Information

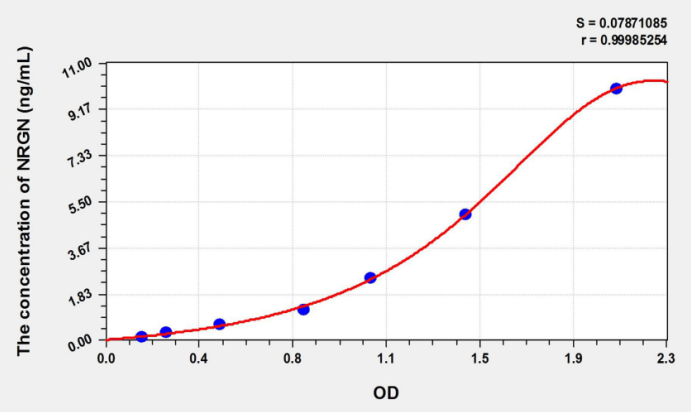
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ENZ-KIT272-0001	

Manuals, SDS & CofA

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- Predominantly AD-associated synaptic marker — most elevated in AD, with emerging evidence of elevation in frontotemporal dementia
- Validated for **serum**, **plasma**, **tissue homogenates**, and **cell lysates**
- 96-well breakaway strip format; intra-assay CV <8%; inter-assay CV <10%



Representative Standard Curve — Human Neurogranin (NRGN) ELISA Kit (ENZ-KIT272)

Handling & Storage

Use/Stability	When stored and handled as directed, the kit is stable until the expiration date on the label.
Handling	Store at 4°C upon receipt. For extended storage, keep at −20°C. Use before the expiry date printed on the label.
Short Term Storage	+4°C
Long Term Storage	−20°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Application	ELISA
Application Notes	Quantification of Neurogranin in serum, plasma, tissue homogenates, and cell lysates for Alzheimer’s disease and synaptic integrity research. Suitable for hippocampal and cortical tissue studies, neuronal cell lysate applications, and blood-based Neurogranin measurement.
Assay Time	3.5 hours
Compatibility	Standard 96-well microplate reader capable of reading absorbance at 450 nm.
Contents	Pre-Coated Microplate, 96 well (12 breakaway strips of 8); Standard (Lyophilized); Biotinylated Detection Antibody (100×); Streptavidin-HRP Conjugate (100×); Standard/Sample Diluent Buffer; Biotinylated Antibody Diluent; HRP Diluent; Wash Buffer (25×); TMB Substrate Solution; Stop Reagent; Adhesive Plate Covers
Gene/Protein Identifier	NRGN
Sensitivity	0.054 ng/mL (Detection range: 0.16–10 ng/mL)
Species Reactivity	Human
Specificity	Human Neurogranin (NRGN)

Technical Info / Product Notes	Two-step sequential sandwich ELISA. Capture antibody pre-coated on breakaway 96-well strips. Step 1: sample/standard incubation, 37°C, 80 min. Step 2: biotinylated detection antibody, 37°C, 50 min. Step 3: Streptavidin-HRP, 37°C, 50 min. Step 4: TMB substrate, 37°C, 20 min (protected from light). Stop reagent added; read at 450 nm. Intra-assay CV <8%; inter-assay CV <10%. Standard reconstituted in Standard/Sample Diluent Buffer. Do not mix reagents from different lot numbers (exception: TMB, Wash Buffer, Stop Reagent). Azide-free buffers required — azide inhibits HRP color development. Detection range: 0.16–10 ng/mL . Sensitivity: 0.054 ng/mL
UniProt ID	Q92686
Wavelength	450 nm

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