

## Recombinant Protein Technical Manual

# Recombinant Human NRXN3 Protein (His Tag)(Active) RPES4957

#### **Product Data:**

**Product SKU:** RPES4957 **Size:** 50μg

Species: Human Expression host: HEK293 Cells

**Uniprot:** NP 620426.2

#### **Protein Information:**

Molecular Mass: 36 kDa

AP Molecular Mass: 50-60 kDa

Tag: C-His

**Bio-activity:** Measured by the ability of the immobilized protein to support the adhesion of C6

Rat brain glial cells. When 5 x 10E4 cells/well are added to NRXN3 coated plates  $(0.8 \mu g/ml \text{ and } 100 \mu l/well)$ , approximately 30%-50% will adhere specifically after

60 minutes at 37 °C.

**Purity:** > 94 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per μg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** 

**Synonyms:** C14orf60

## Immunogen Information:

Sequence: Met 1-Thr 357

## **Background**:

Neurexin-3-beta, also known as Neurexin III-beta and NRXN3, is a single-pass type I membrane protein which belongs to the neurexin family. It contains one laminin G-like domain. It is a neuronal cell surface protein that may be involved in cell recognition and cell adhesion. Neurexins are a family of proteins that function in the vertebrate nervous system as cell adhesion molecules and receptors. They are encoded by several unlinked genes of which two, NRXN1 and NRXN3, are among the largest known human genes. Three of the genes ( NRXN1, NRXN2, NRXN3 ) utilize two alternate promoters and include numerous alternatively spliced exons to generate thousands of distinct mRNA transcripts and protein isoforms. The majority of transcripts are produced from the upstream promoter and encode alpha-neurexin isoforms; a much smaller number of transcripts are produced from the downstream promoter and encode beta-neurexin isoforms. The alpha-neurexins contain EGF-like sequences and laminin G domains, and have been shown to interact with neurexophilins. The beta-neurexins lack EGF-like sequences and contain fewer laminin G domains than alpha-neurexins. NRXN3 have been linked to genetic predisposition towards a number of conditions such as alcohol or drug addiction, or obesity.