

DESCRIPTION

Species Reactivity	Human
Specificity	Detects a synthetic peptide specific for human RBFOX3 around amino acid 25 in Direct ELISA.
Source	Recombinant Monoclonal Rabbit IgG Clone # 3202C
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Synthetic Peptide Accession # A6NFN3
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

RBFOX3, also known as Neuronal nuclei (NeuN), is a 34kDa marker of post-mitotic neurons that is highly conserved among different species. The RBFOX family regulates alternative splicing and is encoded by three genes: RBFOX1, RBFOX2 and RBFOX3. RBFOX3 mediates hippocampal circuitry, neurogenesis, and synaptogenesis. RBFOX3 plays a crucial role in normal synaptic function and is implicated in human neurological functions and mutations have been linked to neurodevelopmental delay, cognitive impairment, autistic features, and epilepsy.

References:

1. Wang HY, Hsieh PF, Huang DF, Chin PS, Chou CH, Tung CC, Chen SY, Lee LJ, Gau SS, Huang HS. RBFOX3/NeuN is Required for Hippocampal Circuit Balance and Function. *Sci Rep.* 2015 Dec 1;5:17383. doi: 10.1038/srep17383. PMID: 26619789; PMCID: PMC4664964.
2. Huang DF, Lee CY, Chou MY, Yang TY, Cao X, Hsiao YH, Wu RN, Lien CC, Huang YS, Huang HP, Gau SS, Huang HS. Neuronal splicing regulator RBFOX3 mediates seizures via regulating Vamp1 expression preferentially in NPY-expressing GABAergic neurons. *Proc Natl Acad Sci U S A.* 2022 Aug 16;119(33):e2203632119. doi: 10.1073/pnas.2203632119. Epub 2022 Aug 11. PMID: 35951651; PMCID: PMC9388145.

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