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CHRNB2
Purified Mouse Monoclonal Antibody
Catalog # AO2598a

Specification

CHRNB2 - Product Information

Application	**WB, IHC, ICC, E**
Primary Accession	P17787
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG2a**
Calculated MW	**57kDa KDa**

Immunogen
Purified recombinant fragment of human CHRNB2 (AA: extra 26-233) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

CHRNB2 - Additional Information

Gene ID 1141

Other Names
EFNL3; nAChRB2

Dilution
WB~~ 1/500 - 1/2000
IHC~~1:100~500
ICC~~N/A
E~~ 1/10000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CHRNB2 is for research use only and not for use in diagnostic or therapeutic procedures.

CHRNB2 - Protein Information

Name CHRNB2 (HGNC:1962)

Function
Component of neuronal acetylcholine receptors (nAChRs) that function as pentameric, ligand-gated cation channels with high calcium permeability among other activities. nAChRs are excitatory neurotrasnmitter receptors formed by a collection of nAChR subunits known to mediate

synaptic transmission in the nervous system and the neuromuscular junction. Each nAchR subunit confers differential attributes to channel properties, including activation, deactivation and desensitization kinetics, pH sensitivity, cation permeability, and binding to allosteric modulators (PubMed:22361591, PubMed:27698419, PubMed:29720657, PubMed:38454578). CHRNB2 forms heteropentameric neuronal acetylcholine receptors with CHRNA2, CHRNA3, CHRNA4 and CHRNA6, as well as CHRNA5 and CHRNB3 as accesory subunits (PubMed:16835356, PubMed:20881005, PubMed:22361591, PubMed:27698419, PubMed:29720657, PubMed:38454578, PubMed:8663494). Found in two major stoichiometric forms,(CHRNA4)3:(CHRNB2)2 and (CHRNA4)2:(CHRNB2)3, the two stoichiometric forms differ in their unitary conductance, calcium permeability, ACh sensitivity and potentiation by divalent cation (PubMed:27698419, PubMed:29720657, PubMed:38454578). Heteropentameric channels with CHRNA6 and CHRNA4 exhibit high sensitivity to ACh and nicotine and are predominantly expressed in only a few brain areas, including dopaminergic neurons, norepirephrine neurons and cells of the visual system. nAChrs containing CHRNA6 subunits mediate endogenous cholinergic modulation of dopamine and gamma-aminobutyric acid (GABA) release in response to nicotine at nerve terminals (By similarity). Also forms functional nAChRs with other subunits such as CHRNA7:CHRNB2, mainly expressed in basal forebrain cholinergic neurons (PubMed:33239400, PubMed:38161283).

Cellular Location
Synaptic cell membrane {ECO:0000250|UniProtKB:P12390}; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein

CHRNB2 - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CHRNB2 - Images

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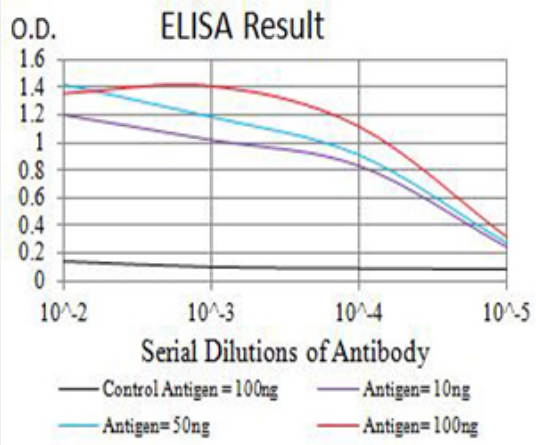

Figure 1:Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

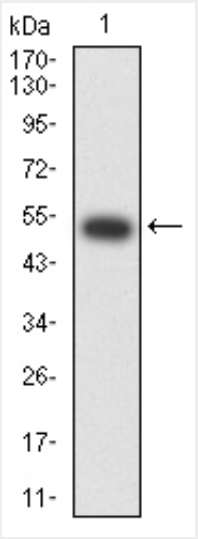

Figure 2:Western blot analysis using CHRNB2 mAb against human CHRNB2 (AA: extra 26-233) recombinant protein. (Expected MW is 51 kDa)

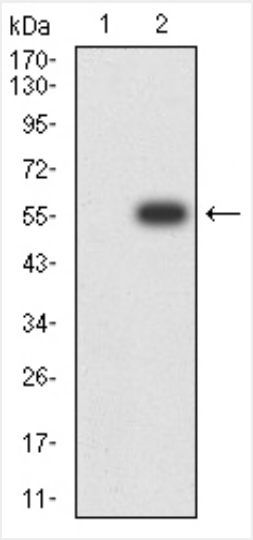

Figure 3:Western blot analysis using CHRNB2 mAb against HEK293 (1) and CHRNB2 (AA: extra 26-233)-hIgGFc transfected HEK293 (2) cell lysate.

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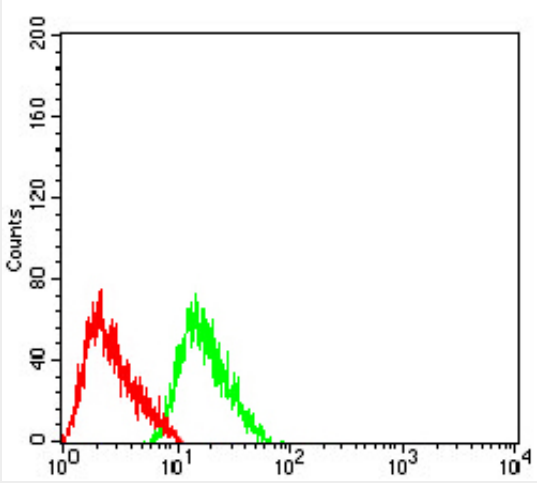

Figure 4:Flow cytometric analysis of SH-SY5Y cells using CHRNB2 mouse mAb (green) and negative control (red).

CHRNB2 - References

1.Prog Neuropsychopharmacol Biol Psychiatry. 2015 Jun 3;59:84-90.2.Cancer Epidemiol Biomarkers Prev. 2009 Oct;18(10):2608-12.