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**[ Marker Primary Antibody ]**

# Rabbit Anti-CHRNA2 (neuronal)/AF647 Conjugated antibody

**Catalog Number: SL2538R-AF647**

**FOR RESEARCH USE ONLY**

**[ DATASHEET ]**

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| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Target:** | Anti-CHRNA2(neuronal)/AF647 |
| **Immunogen:** | KLH conjugated synthetic peptide derived from human CHRNA2 |
| **Purification:** | affinity purified by Protein A |
| **Concentration:** | 1mg/ml |
| **Storage:** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| **Applications:** | IF=1:100-500<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Reactivity:** | Rat(predicted:Human,Mouse,Dog,Rabbit) |
| **Background:** | background: Nicotinic acetylcholine receptors (nAChRs) are ligand-gated ion channels formed by a pentameric arrangement of alpha and beta subunits to create distinct muscle and neuronal receptors. Neuronal receptors are found throughout the peripheral and central nervous system where they are involved in fast synaptic transmission. This gene encodes an alpha subunit that is widely expressed in the brain. The proposed structure for nAChR subunits is a conserved N-terminal extracellular domain followed by three conserved transmembrane domains, a variable cytoplasmic loop, a fourth conserved transmembrane domain, and a short C-terminal extracellular region. Mutations in this gene cause autosomal dominant nocturnal frontal lobe epilepsy type 4. Single nucleotide polymorphisms (SNPs) in this gene have been associated with nicotine dependence. [provided by RefSeq].<br>**Function:** After binding acetylcholine, the AChR responds by an extensive change in conformation that affects all subunits and leads to opening of an ion-conducting channel across the plasma membrane. |

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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| | **Subunit:** Neuronal AChR seems to be composed of two different types of subunits: alpha and non-alpha (beta). Alpha-2 subunit can be combined to beta-2 or beta-4 to give rise to functional receptors.<br>**Subcellular Location:** Cell junction, synapse, postsynaptic cell membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein.<br>DISEASE: Epilepsy, nocturnal frontal lobe, 4 (ENFL4) [MIM:610353]: An autosomal dominant focal epilepsy characterized by nocturnal seizures associated with fear sensation, tongue movements, and nocturnal wandering, closely resembling nightmares and sleep walking. Note=The disease is caused by mutations affecting the gene represented in this entry.<br>**Similarity:** Belongs to the ligand-gated ion channel (TC 1.A.9) family. Acetylcholine receptor (TC 1.A.9.1) subfamily. Alpha-2/CHRNA2 sub-subfamily.<br>**Database links:**<br>**Entrez Gene:** 1135 Human<br>Omim: 118502 Human<br>**SwissProt:** Q5IS52 Chimpanzee<br>**SwissProt:** Q15822 Human<br>**Unigene:** 57718 Human<br>Important<br>**Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |