**Anti-Nicotinic Acetylcholine Receptor, β4 (nAChR β4) Antibody**

**Catalog #:** 1471-nACB4  
**Size:** 100 µl

<table>
<thead>
<tr>
<th>Host</th>
<th>Applications</th>
<th>Species Tested</th>
<th>Species Reactivity*</th>
<th>Molecular Reference</th>
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</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>WB 1:1000</td>
<td>M, R</td>
<td>~52 kDa</td>
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</table>

**Product Description:** Affinity purified rabbit polyclonal antibody.

**Biological Significance:** Nicotinic acetylcholine receptors (nAChRs) are ionotropic, cholinergic receptors that are divided into 2 types: muscle type and neuronal type. Neuronal nAChRs are pentameric ion channels consisting of 5 identical (homopentamers) or different (heteropentamers) subunits. Heteropentameric neuronal nAChRs mediate fast synaptic transmission in the autonomic nervous system. The predominant hetero-oligomeric nAChR in the CNS contain the subunits α4β2, whereas α3β4 prevail in the PNS. However, the expression of these subunits varies not only by region but also during development (Scholze et al 2011). In the brain, β2-containing receptors greatly outnumber receptors that contain β4 (McGehee & Role, 1995; Albuquerque et al., 2009), and in most brain regions, targeted deletion of the β2 subunit virtually abolishes [3H]-epibatidine binding and receptor autoradiography (Zoli et al., 1998) due to the absence of a β subunit required to form functional nAChRs (Champtiaux & Changeux, 2004).

**Antigen:** Fusion protein from the cytoplasmic loop of the β4 subunit of rat nAChR.

**Antibody Specificity:** Specific for endogenous levels of the ~52 kDa nAChRβ4 protein.

**Purification Method:** Prepared from pooled rabbit serum by affinity purification using a column to which the fusion protein antigen was coupled.

**Quality Control Tests:** Western blots performed on each lot.

**Packaging:** 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

**Storage and Stability:** Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.

**Western blot of mouse habenula lysate showing specific immunolabeling of the ~52 kDa nAChRβ4 protein.**
General References:


