Synaptotagmin 2 luminal domain

Cat.No. 105 223; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/Storage

<table>
<thead>
<tr>
<th>Storage</th>
<th>Reconstitution</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin was added for stabilization. For reconstitution add 50 µl H2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.</td>
<td></td>
</tr>
</tbody>
</table>

Applications

<table>
<thead>
<tr>
<th>Applications</th>
<th>WB: 1 : 1000 (AP staining)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP: yes</td>
<td>ICC: 1 : 100</td>
</tr>
<tr>
<td>IHC: 1 : 500</td>
<td>IHC-P/FFPE: not tested yet</td>
</tr>
</tbody>
</table>

Immunogen

Synthetic peptide corresponding to AA 1 to 11 from mouse Synaptotagmin2 (UniProt Id: P46097)

Reactivity

Reacts with: rat (P29101), mouse (P46097).

Other species not tested yet.

Specificity

Specific for synaptotagmin 2.

Remarks

These antibodies can be used for labeling of recycling synaptic vesicles by adding to living neurons or as a marker for exocytosis in isolated nerve terminals.

Selected References SYSY Antibodies

Control of exocytosis by synaptotagmins and otoferlin in auditory hair cells.


Selected General References

Synaptotagmin-2 is essential for survival and contributes to Ca2+ triggering of neurotransmitter release in central and neuromuscular synapses.


Genetic analysis of synaptotagmin 2 in spontaneous and Ca2+-triggered neurotransmitter release.

Pang ZP, Sun J, Rizo J, Maximov A, Südhof TC


WNK1 phosphorylates synaptotagmin 2 and modulates its membrane binding.

Lee BH, Min X, Heise CJ, Xu BE, Chen S, Shu H, Luby-Phelps K, Goldsmith EJ, Cobb MH


Synaptotagmin II could confer Ca2+-sensitivity to phagocytosis in human neutrophils.

Lindmark IM, Karlsson A, Serrander L, Francois P, Lew D, Rasmusson B, Stendahl O, Niisse O


Amino acid residues before the hydrophobic region which are critical for membrane translocation of the N-terminal domain of synaptotagmin II.

Kida Y, Sakaguchi M, Fukuda M, Mikoshiba K, Mihara K


Synaptotagmin II negatively regulates Ca2+-triggered exocytosis of lysosomes in mast cells.

Baram D, Adachi R, Medalia O, Tuvim M, Dickey BF, Mekori YA, Sagi-Eisenberg R


Synaptotagmin II: A novel differentially distributed form of synaptotagmin.

Geppert M, Archer BT, Südhof TC


Synaptotagmin 2 is an integral membrane glycoprotein of neuronal synaptic vesicles. It is very similar to synaptotagmin 1 but shows a partly complementary expression pattern in the CNS. Synaptotagmin 2 lacks a CAMK II/PKC phosphorylation site which is present in synaptotagmin 1. Recently synaptotagmin 2 has been shown to be an alternative Ca2+ sensor for fast secretion.

TO BE USED IN VITRO / FOR RESEARCH ONLY

NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS