**Selected References SYSY Antibodies**

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Caswell PT, Dickens M
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Shinoda Y, Ahmed S, Ramachandran B, Bharal V, Brockeit D, Altas B, Dean C

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Alexander NJ, Rau AR, Jimenez VA, Daunais JB, Grant KA, McCool BA
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TO BE USED IN VITRO / FOR RESEARCH ONLY

**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**Rab 3** is a member of the Rab protein family that belongs to the ras-related superfamily of small monomeric GTPases. Four related isoforms of Rab 3 are known (Rab 3a, 3b, 3c, and 3d). Rab 3a and 3c are predominantly expressed in neurons and neuroendocrine cells where they are localized to synaptic vesicles. Unlike the integral membrane proteins of synaptic vesicles, Rab 3a/c is absent from the Golgi complex and thus does not result in immunostaining of the axo-dendritic region as sometimes seen with e.g. synaptophysin, synaptobrevin/VAMP, or synaptogyrin. Rab 3b and 3d are expressed in non-neuronal tissues such as adipocytes and the exocrine pancreas (3d). It has been shown that overexpression of Rab 3 inhibits Ca2+ regulated exocytosis and converts it into a constitutive Ca2+ independent exocytosis mechanism.

**Cat.No. 107 111; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)**

**Data Sheet**

<table>
<thead>
<tr>
<th>Reconstitution/Storage</th>
<th>100 µg purified IgG, lyophilized. For reconstitution add 100 µl H2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>WB: 1 : 1000 (AP staining) IP: yes \n\n ICC: 1 : 1000 up to 1 : 2000 \nIHC: 1 : 200 \nIHC-P/FFPE: 1 : 200 \nEM: yes \nELISA: yes (see remarks)</td>
</tr>
<tr>
<td>Clone</td>
<td>42.2</td>
</tr>
<tr>
<td>Subtype</td>
<td>IgG1 (κ light chain)</td>
</tr>
<tr>
<td>Immogen</td>
<td>Recombinant protein corresponding to AA 1 to 220 from rat Rab3a (UniProt Id: P63012)</td>
</tr>
<tr>
<td>Epitop</td>
<td>Epitop: AA 191 to 220 from rat Rab3a (UniProt Id: P63012)</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reacts with: human (P20336), rat (P63012), mouse (P63011), mammals. Other species not tested yet.</td>
</tr>
<tr>
<td>Specificity</td>
<td>Specific for mammalian Rab 3a. (K.O. verified)</td>
</tr>
<tr>
<td>Remarks</td>
<td>ELISA: Suitable as capture antibody for sandwich-ELISA with cat. no. 107 102 as detector antibody (protocol for sandwich-ELISA).</td>
</tr>
</tbody>
</table>

Rab 3a is a member of the Rab protein family that belongs to the ras-related superfamily of small monomeric GTPases. Four related isoforms of Rab 3 are known (Rab 3a, 3b, 3c, and 3d). Rab 3a and 3c are predominantly expressed in neurons and neuroendocrine cells where they are localized to synaptic vesicles. Unlike the integral membrane proteins of synaptic vesicles, Rab 3a/c is absent from the Golgi complex and thus does not result in immunostaining of the axo-dendritic region as sometimes seen with e.g. synaptophysin, synaptobrevin/VAMP, or synaptogyrin. Rab 3b and 3d are expressed in non-neuronal tissues such as adipocytes and the exocrine pancreas (3d). It has been shown that overexpression of Rab 3 inhibits Ca2+ regulated exocytosis and converts it into a constitutive Ca2+ independent exocytosis mechanism.