**Arc**

A cytoskeleton-associated protein involved in neuronal plasticity

Immediate-early genes (IEGs) are rapidly induced after patterned synaptic activity. Genes that are involved in this complex response code for transcription and growth factors, metabolic and signaling enzymes, small GTP binding proteins and structural proteins. Some of these proteins may play a crucial role in long term plasticity which is important for learning processes. The activity regulated cytoskeleton associated protein Arc or Arg 3.1 is enriched in dendrites and colocalizes with F-Actin. Direct interaction of Arc with actin has also been demonstrated by biochemical studies.

**Fact Sheet Cat. No. 156 003**

<table>
<thead>
<tr>
<th>Polyclonal rabbit antibody</th>
<th>Cat. No. 156 003 purified antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H₂O to get a 1mg/ml solution of antibody in PBS. Then aliquot and store at -20°C until use.</td>
<td></td>
</tr>
</tbody>
</table>

**Applications**

<table>
<thead>
<tr>
<th>WB: 1 : 500 up to 1 : 2000 (AP staining)</th>
<th>blot</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP: yes</td>
<td></td>
</tr>
<tr>
<td>ICC: 1 : 1000</td>
<td></td>
</tr>
<tr>
<td>IHC: 1 : 1000</td>
<td>image</td>
</tr>
<tr>
<td>IHC-P: 1 : 1000</td>
<td>image</td>
</tr>
<tr>
<td>ELISA: yes (see remarks)</td>
<td></td>
</tr>
</tbody>
</table>

**Immunogen**

Strep-Tag® fusion protein of full-length mouse arc.

**Reactivity**

Rat, mouse, no signal in zebrafish; other species not tested yet.

**Specificity**

Specific for arc.

**Remarks**

ELISA: Suitable as detector antibody for sandwich-ELISA with cat. no. 156 011 as capture antibody (protocol for sandwich-ELISA).

**References SySy Arc antibodies**


Piatti VC, Davies-Sala MG, Espósito MS, Mongiat LA, Trinchero MF & Schinder AF (2011). The timing for neuronal maturation in the adult hippocampus is modulated by local network activity. Journal of Neuroscience 31: 7715-28. *rabbit antibody; IHC*


General references Arc


