Anti-Phospho-Ser\textsuperscript{503} Kv3.1, Voltage-Gated, Potassium Channel Antibody

Catalog #: p1550-503  Size: 100 µl

Cite this Antibody: PhosphoSolutions Cat# p1550-503, RRID:AB_2492212

<table>
<thead>
<tr>
<th>Host</th>
<th>Applications</th>
<th>Species Tested</th>
<th>Species Reactivity*</th>
<th>Molecular Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rabbit</td>
<td>WB 1:1000</td>
<td>Ha, M, R</td>
<td>~100 kDa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ICC 1:400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IHC 1:400-1:1000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product Description: Affinity purified rabbit polyclonal antibody.

Biological Significance: Voltage-gated K\textsuperscript{+} channels are important determinants of neuronal membrane excitability. Moreover, differences in K\textsuperscript{+} channel expression patterns and densities contribute to the variations in action potential waveforms and repetitive firing patterns evident in different neuronal cell types (Maletic-Savatic et al., 1995; Pongs, 1999; Blaine and Ribera, 1998; Burger and Ribera, 1996). The Kv3.1 potassium channel is expressed at high levels in neurons that characteristically fire rapid trains of action potentials (Gan et al., 1999). Particularly high levels of this channel are found in neurons of the auditory brainstem. These neurons appear to participate in neural circuits that determine the intensity and timing of auditory stimuli and use this information to determine the location of sounds in space (von Hehn et al., 2004).

Antigen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser\textsuperscript{503} of the voltage-gated potassium channel Kv3.1, conjugated to keyhole limpet hemocyanin (KLH).

Antibody Specificity: Specific for endogenous levels of the ~100 kDa Kv3.1 voltage-gated potassium channel protein phosphorylated at Ser\textsuperscript{503}.

Purification Method: Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

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.

Immunostaining of Chinese Hamster Overy (CHO) cells stably transfected with KV3.1.b gene with the phospho-Ser\textsuperscript{503} Kv3.1 subunit antibody (cat # p1550-503, green, 1:400). The image on the bottom shows cells that have been treated with the protein kinase C activator PMA (500nM) while the control cells are on the top.
Product Specific References:


General References:


