

## DESCRIPTION

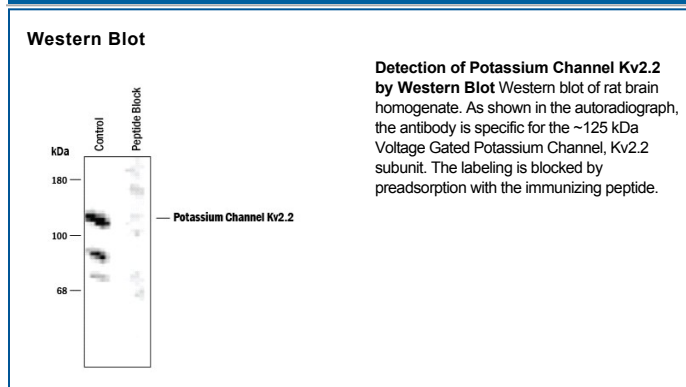
<b>Species Reactivity</b>	Rat/ <i>Xenopus</i>
<b>Specificity</b>	Rodent and <i>Xenopus</i> ~125 kDa Kv2.2 subunit of the Voltage Gated Potassium Channel protein.
<b>Source</b>	Polyclonal Rabbit IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Peptide from the Kv2.2 subunit region of <i>Xenopus</i> and rodent, conjugated to keyhole limpet hemocyanin (KLH)
<b>Formulation</b>	100 µL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/mL BSA and 50% glycerol. See Certificate of Analysis for details.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	1:1000 dilution	See Below
<b>Immunohistochemistry</b>	1:1000 dilution	Frozen sections; unpublished observations

## DATA



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	For long-term storage, ≤ -20° C is recommended. Product is stable at ≤ -20° C for at least 1 year.

## BACKGROUND

The rat potassium channel Kv2.2 subunit is a 95 - 125 kDa, six transmembrane glycoprotein that belongs to the B subfamily of the potassium channel family. It generates a voltage-dependent channel selective for potassium that helps determine the electrical property of smooth muscle cells, various epithelial cell types and neurons. The symbol K stands for potassium, v for the molecule's ligand (i.e. voltage), 2 for the family type that is determined by similarity to fruit fly genes, and 2 for the gene number within the family. There are two genes within the Kv2 family (Kv2.1 and Kv2.2) that, although co-expressed, preferentially generate homotetramers rather than heterotetramers. Kv2 family members are associated with action potential repolarization. Kv2.2 is particularly noted for setting the resting membrane potential. Low Kv2.2 activity results in hypersensitive neurons.

### References:

1. Trimmer, J.S. and K.J. Rhodes (2004) *Annu. Rev. Physiol.* 66:477.
2. Malin, S.A. and J.M. Nerbonne (2002) *J. Neurosci.* 22:10094.
3. Blaine, J.T. and A.B. Ribera (1998) *J. Neurosci.* 18:9585.
4. Hwang, P.M. et al. (1992) *Neuron* 8:473.
5. O'Grady, S.M. and S.Y. Lee (2005) *Int. J. Biochem. Cell Biol.* 37:1578.