

Bradykinin Receptor (B₁) Polyclonal Antibody

Product Specifications

Catalog Number:	905-787						
Host:	Rabbit						
Species Reactivity:	Mouse, Rat Other species not tested						
Applications:	WB: Yes IHC*: Yes Membrane ELISA*: Yes Cell ELISA*: Yes Other applications not tested. <i>The optimal dilution for a specific application must be determined by the investigator.</i> <i>*Under certain conditions, this antibody has been shown to display activation-state specificity⁶. The dilution required to achieve activation-state specificity will vary, and should be optimized by the researcher.</i>						
Predicted M.W.:	Predicted ~38 kDa. Observed m.w. species (~ 38 kDa) and intermediates also observed which reflect post-translational modification of the receptor ⁷ .						
Concentration:	See product label						
Purification:	Peptide Affinity						
Format:	PBS, 50% glycerol, 0.01% sodium azide						
Storage:	Store at -20°C <i>Shipping conditions may differ from the recommended storage temperature.</i>						
Immunogen:	Synthetic peptide derived from sequence near the amino-terminus of rat Bradykinin Receptor (B ₁)						
Related Products:	<table border="0"> <tr> <td>SAB-300</td> <td>Goat anti-Rabbit IgG Polyclonal Antibody, HRP Conjugate</td> </tr> <tr> <td>900-066</td> <td>cAMP (direct) EIA Kit</td> </tr> <tr> <td>905-747</td> <td>Bradykinin Receptor (B₂) Polyclonal Antibody</td> </tr> </table>	SAB-300	Goat anti-Rabbit IgG Polyclonal Antibody, HRP Conjugate	900-066	cAMP (direct) EIA Kit	905-747	Bradykinin Receptor (B ₂) Polyclonal Antibody
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905-747	Bradykinin Receptor (B ₂) Polyclonal Antibody						

Background:

Bradykinin (BK) is a nine-amino acid peptide produced by kallikrein cleavage of kininogen precursor proteins in tissue and plasma, and is an important regulator of vascular and pain responses to tissue injury¹. Two receptors (B₁ and B₂) have been identified as mediators of BK signaling, and are both members of the seven-transmembrane domain-containing G-protein coupled receptor (GPCR) family^{1,2}. The B₂ receptor is constitutively expressed in smooth muscle and neurons, whereas B₁ expression is induced following tissue injury or during inflammation. The B₂ receptor displays high affinity for BK and Lys-BK peptide agonists, while the B₁ receptor displays highest affinity to des-Arg⁹-BK and des-Arg¹⁰-kallidin³. Both receptors are best characterized as signaling via coupling to G_q alpha subunits (particularly G_{q(11)}), leading to activation of phospholipase C β , hydrolysis of PI, and an intracellular increase in free calcium, although coupling through G_i, G_s, and G_{12/13} has also been observed^{2,4,5}.

References:

1. Moreau, M.E., *et al.* (2005) *J Pharmacol Sci.* **99**, 6-38.
2. Leeb-Lundberg, L.M., *et al.* (2005) *Pharmacol Rev.* **57**, 27-77.
3. Marceua, F., *et al.* (1998) *Pharmacol Rev.* **50**, 357-386.
4. Kang, D.S. and Leeb-Lundberg, L.M. (2002) *Mol Pharmacol.* **62**, 281-288.
5. Jones, S., *et al.* (1995) *Neuron.* **14**, 399-405.
6. Gupta, A., *et al.* (2007) *J Biol Chem.* **282**, 5116-5124.
7. Abdalla, S., *et al.* (2000) *Nature* **407**, 94-98.



Visit the Scientific Resources section of our website for ELISA, IHC, and WB protocols.

Generally reagents are good for one year from the date of receipt, except for conjugates which are good for six months and reagents with an expiration date indicated on the label or other supporting document.

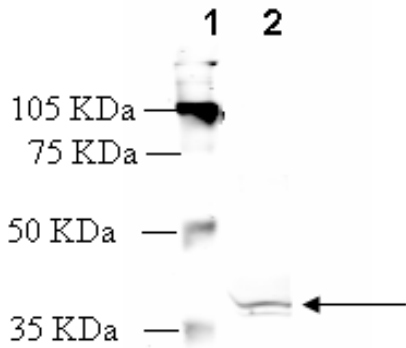
Assay Designs makes every effort to provide a consistent source of high quality polyclonal antibodies. However, due to variations inherent in this technology, investigators are urged to purchase sufficient quantities of a specific lot number if an identical antibody is required throughout a study.

(OVER)

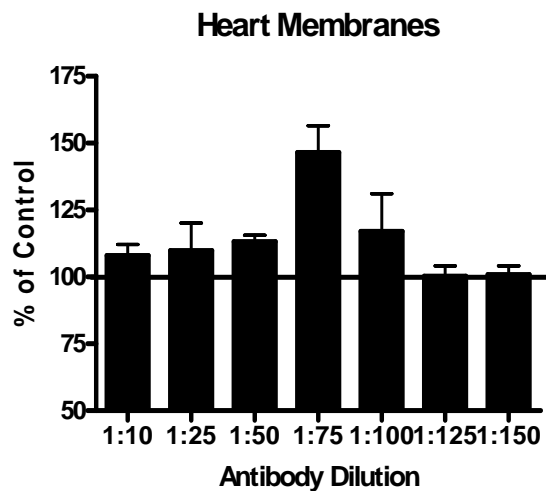
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Western Blot Analysis: MW marker (1) and 25 µg rat heart extract (2) probed with Bradykinin Receptor (B₁) Polyclonal Antibody at 0.75 µg/mL.



Membrane ELISA: Lewis rat heart membranes (5 µg/well) were treated with 1 µM concentrations of agonist (BK-1-8) and probed with Bradykinin Receptor (B₁) Polyclonal Antibody (1:10 to 1:150 of a 0.1 µg/µL stock solution) by ELISA. Data from vehicle treated cells were taken as 100%. Results are the mean ± SEM (n=6).