

## Endothelin Receptor (ET<sub>B</sub>) Polyclonal Antibody

### Product Specifications

<b>Catalog Number:</b>	905-791-100								
<b>Host:</b>	Rabbit								
<b>Species Reactivity:</b>	Rat (predicted to react with human and mouse based on epitope sequence identity) Other species not tested								
<b>Applications:</b>	<b>WB:</b> Yes Other applications not tested. <i>The optimal dilution for a specific application must be determined by the investigator.</i>								
<b>Predicted M.W.:</b>	Predicted ~50 kDa. Higher m.w. species (~ 55 kDa) and intermediates also observed which reflect post-translational modification of the receptor <sup>8,9</sup> .								
<b>Concentration:</b>	See product label								
<b>Purification:</b>	Peptide Affinity								
<b>Format:</b>	PBS, 50% glycerol, 0.01% sodium azide								
<b>Storage:</b>	Store at -20°C <i>Shipping conditions may differ from the recommended storage temperature.</i>								
<b>Immunogen:</b>	Synthetic peptide derived from sequence near the amino-terminus of rat Endothelin Receptor (ET <sub>B</sub> )								
<b>Related Products:</b>	<table border="0"> <tr> <td>SAB-300</td> <td>Goat anti-Rabbit IgG Polyclonal Antibody, HRP Conjugate</td> </tr> <tr> <td>900-020A</td> <td>Endothelin-1 EIA Kit</td> </tr> <tr> <td>900-022</td> <td>Endothelin-1 EIA Kit</td> </tr> <tr> <td>905-790-100</td> <td>Endothelin Receptor (ET<sub>A</sub>) Polyclonal Antibody</td> </tr> </table>	SAB-300	Goat anti-Rabbit IgG Polyclonal Antibody, HRP Conjugate	900-020A	Endothelin-1 EIA Kit	900-022	Endothelin-1 EIA Kit	905-790-100	Endothelin Receptor (ET <sub>A</sub> ) Polyclonal Antibody
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### Background:

Endothelins are vasoactive peptides that exist in three forms (ET-1, ET-2, and ET-3), and function in the maintenance of vascular tone via two identified seven transmembrane-spanning domain-containing G protein-coupled receptors, endothelin A (ET<sub>A</sub>) and endothelin B (ET<sub>B</sub>)<sup>1</sup>. The human ET<sub>A</sub> receptor is primarily expressed in vascular smooth muscle cells, including those of the heart (also in myocytes), lung, and brain, and its stimulation generally results in vasoconstriction<sup>2</sup>. Activation of ET<sub>A</sub> receptors can be stimulated by binding of ET-1 and ET-2, but not ET-3, triggering the release of vasorelaxative factors such as nitric oxide (NO) and prostanoids from endothelial cells<sup>5</sup>. Human ET<sub>B</sub> receptors are primarily expressed in endothelial cells lining the vessel walls of the lungs, heart, and brain, and in contrast to ET<sub>A</sub> receptors, stimulation generally results in transient vasodilation<sup>3-5</sup>. Activation of ET<sub>B</sub> receptors can be stimulated by binding of all three endothelins, triggering the release of vasorelaxative factors such as nitric oxide (NO) and prostanoids from endothelial cells<sup>5</sup>. Both ET<sub>A</sub> and ET<sub>B</sub> receptors signal primarily via coupling to G<sub>q/11</sub> alpha subunits, although G<sub>i/o</sub> and G<sub>s</sub> coupling are also established mechanisms of endothelin signaling, resulting in stimulation of phospholipases C, A<sub>2</sub>, and D<sup>6,7</sup>.

#### References:

1. Yanagisawa, M., *et al.* (1988) *Nature* **332**, 411-415.
2. Maguire, J.J. and Davenport, A.P. (1995) *Br J Pharmacol.* **115**, 191-197.
3. Arai, H., *et al.* (1990) *Nature* **348**, 730-732.
4. Molenaar, P., *et al.* (1993) *Circ Res.* **72**, 526-538.
5. Sakurai, T., *et al.* (1990) *Nature* **348**, 732-735.
6. Warner, T.D., *et al.* (1989) *Eur J Pharmacol.* **159**, 325-326.
7. Takigawa, M., *et al.* (1995) *Eur J Biochem.* **228**, 102-108.
8. Sakamoto, A., *et al.* (1991) *Biochem Biophys Res Commun.* **178**, 656-663.
9. Sakurai, T., *et al.* (1990) *Nature* **348**, 732-735.



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.

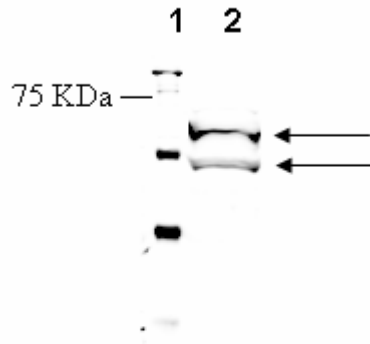
Assay Designs makes every effort to provide a consistent source of high quality polyclonal antibodies. However, due to variations inherent in this technology, investigators are urged to purchase sufficient quantities of a specific lot number if an identical antibody is required throughout a study.

(OVER)

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**Western Blot Analysis:** MW marker (1) and 20 µg rat heart membrane extract (2) probed with Endothelin Receptor (ET<sub>B</sub>) Polyclonal Antibody at 3.4 µg/mL.