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Product Information

Anti-Endothelin Receptor A
produced in rabbit, affinity isolated antibody

Catalog Number **E3651**

Synonyms: Anti-ET-A, Anti-ET1-specific type endothelin receptor, Anti-Ednra, Anti-ETA, Anti-ETRA

Product Description
Anti-Endothelin Receptor A (ET-A) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 413-426 of rat ET-A, with additional N-terminal cysteine.[1,2] The antibody is affinity-purified using the immunizing peptide immobilized on GST fusion protein-agarose.

Anti-Endothelin Receptor A (ET-A) recognizes rat ET-A. Applications include the detection of ET-A by immunoblotting. Detection of the ET-A band by immunoblotting is specifically inhibited with the immunizing peptide.

Endothelins (ETs) are peptides that function via activation of either ET(A) or ET(B) receptors. These ET(A) and ET(B) receptors have seven transmembrane segments and couple through G proteins to multiple effector systems.[3] This allows endothelins to function via diverse signaling mechanisms.

Endothelins are potent vasoconstrictors. Further, endothelin signaling through the ET(A) receptors is important in morphogenesis of structures derived from cranial/cardiac neural crest.[4,5] ET(A) activation also maintains and stimulates thymocyte proliferation and is thus implicated in modulating immune functions.[6] Endothelins modulate insulin secretion,[7] and also modulate CNS control of circulation and respiration.[8]

ET(A) receptor alterations are implicated in a number of diseases including: the vascular changes associated with *Trypanosoma cruz*i infection; pulmonary hypertension; heart failure; atherosclerosis; restenosis; and renal failure.[9, 10] Further, ET(A) receptor activation modulates the proliferation of zona glomerulosa cells of the adrenal cortex and alterations in this modulatory tone may result in the genesis of adrenal tumors.[11]

Researchers have began to learn about the structure and function of these endothelin receptors. However, much remains to be determined about their precise cellular localization, *in vivo* physiological roles, roles in disease states and possible routes to modulate their structure/function to ameliorate effects of disease.

Reagent
Supplied as a lyophilized powder from phosphate buffered saline, pH 7.4, containing 1% bovine serum albumin and 0.05% sodium azide as a preservative.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
Reconstitute the lyophilized vial with 0.05 mL or 0.2 mL deionized water, depending on size purchased. Antibody dilutions should be made in buffer containing 1-3% bovine serum albumin.

Storage/Stability
Store at –20 °C. For continuous use, the product may be stored at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile
Immunoblotting: a working antibody dilution of 1:200 is recommended using rat brain membranes, anti-rabbit IgG-peroxidase conjugate and detection by ECL.

Immunohistochemistry: a working antibody dilution of 1:100 is recommended using rat brain sections or rat lung paraffin embedded sections.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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