

ETAR (M-60): sc-33536

BACKGROUND

Endothelin receptor A (ETAR), also known as EDNRA, ET1 receptor, ETA, EDN1 and ET-AR, is a member of the guanine-binding regulatory protein-coupled receptor family. ETAR binds endothelins and has the highest affinity for its ligand, ET1, as compared to the ETBR receptor. Both ET receptors, ETAR and ETBR, are activated by ET1, which results in inhibition of active lens sodium-potassium transport. Activation of the ET receptors also causes an increase in cytoplasmic calcium concentration in cultured lens epithelial cells. In addition, ETAR induces arachidonic acid accumulation. ETAR has seven hydrophobic transmembrane domains and is expressed in aorta, lung, atrium, kidney, placenta and prostate. Specifically, placental vascular smooth muscle cells (PVSMSs) exclusively express ETAR.

CHROMOSOMAL LOCATION

Genetic locus: EDNRA (human) mapping to 4q31.22; Ednra (mouse) mapping to 8 C1.

SOURCE

ETAR (M-60) is a rabbit polyclonal antibody raised against amino acids 21-80 mapping within an N-terminal extracellular domain of ETAR of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

ETAR (M-60) is recommended for detection of ETAR of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ETAR siRNA (h): sc-39960, ETAR siRNA (m): sc-39961, ETAR siRNA (r): sc-270097, ETAR shRNA Plasmid (h): sc-39960-SH, ETAR shRNA Plasmid (m): sc-39961-SH, ETAR shRNA Plasmid (r): sc-270097-SH, ETAR shRNA (h) Lentiviral Particles: sc-39960-V, ETAR shRNA (m) Lentiviral Particles: sc-39961-V and ETAR shRNA (r) Lentiviral Particles: sc-270097-V.

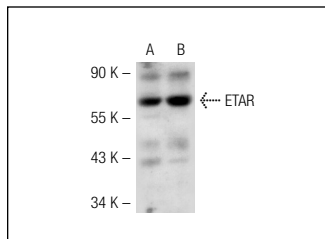
Molecular Weight of ETAR: 69 kDa.

Positive Controls: mouse lung extract: sc-2390, mouse heart extract: sc-2254 or rat testis extract: sc-2400.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ETAR (M-60): sc-33536. Western blot analysis of ETAR expression in mouse heart (A) and mouse lung (B) tissue extracts.

SELECT PRODUCT CITATIONS

- Xie, Y.H., et al. 2010. Up-regulation of G protein-coupled receptors for endothelin and thromboxane by lipid-soluble smoke particles in renal artery of rat. *Basic Clin. Pharmacol. Toxicol.* 107: 803-812.
- Chiou, W.F., et al. 2010. Abnormal protein expression in the corpus cavernosum impairs erectile function in type 2 diabetes. *BJU Int.* 105: 674-680.
- Stösser, S., et al. 2010. Dissecting the functional significance of endothelin A receptors in peripheral nociceptors *in vivo* via conditional gene deletion. *Pain* 148: 206-214.
- Dingemann, J., et al. 2010. Upregulation of endothelin receptors A and B in the nitrofen induced hypoplastic lung occurs early in gestation. *Pediatr. Surg. Int.* 26: 65-69.
- Arfian, N., et al. 2012. ET-1 deletion from endothelial cells protects the kidney during the extension phase of ischemia/reperfusion injury. *Biochem. Biophys. Res. Commun.* 425: 443-449.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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Try **ETAR (16): sc-135902**, our highly recommended monoclonal alternative to ETAR (M-60).