

ETBR (M-74): sc-33538

BACKGROUND

Endothelin receptor B (ETBR), also known as EDNRB, ETB, ETRB, HSCR and HSCR2, is a member of the guanine-binding, regulatory protein-coupled receptor family. Three isoforms of ETBR exist called isoform 1, isoform 2 and δ 3. ETBR is involved in the regulation of sodium excretion and glomerular filtration rate (GFR). ETBR plays a role in the normal development of the neural crest-derived cell lineages, epidermal melanocytes and enteric neurons. ETBR is expressed in lung, kidney, placenta, skeletal muscle and stem villi vessels. Both of the 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. ETBR deficiency causes early onset dysfunction of the kidney, characterized by reduced sodium excretion, decreased GFR and slightly elevated blood pressure. Mutations in the gene encoding ETBR produce congenital aganglionic megacolon and pigment abnormalities. The multigenic disorder, Hirschsprung disease Type 2, is also due to a mutation in the ETBR gene.

CHROMOSOMAL LOCATION

Genetic locus: *Ednrb* (mouse) mapping to 14 E2.3.

SOURCE

ETBR (M-74) is a rabbit polyclonal antibody raised against amino acids 27-100 mapping within an N-terminal extracellular domain of ETBR of mouse origin.

PRODUCT

Each vial contains 200 μ g 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.

RESEARCH USE

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

APPLICATIONS

ETBR (M-74) is recommended for detection of ETBR of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 ETBR siRNA (m): sc-39963, ETBR siRNA (r): sc-270098, ETBR shRNA Plasmid (m): sc-39963-SH, ETBR shRNA Plasmid (r): sc-270098-SH, ETBR shRNA (m) Lentiviral Particles: sc-39963-V and ETBR shRNA (r) Lentiviral Particles: sc-270098-V.

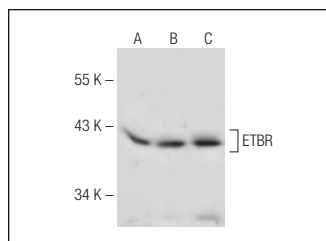
Molecular Weight of ETBR: 50 kDa.

Positive Controls: EOC 20 whole cell lysate: sc-364187, AMJ2-C8 whole cell lysate: sc-364366 or MH-S whole cell lysate: sc-364785.

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



ETBR (M-74): sc-33538. Western blot analysis of ETBR expression in MH-S (A), AMJ2-C8 (B) and EOC 20 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Dingemans, 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.
2. Cao, L., et al. 2012. Cigarette smoke upregulates rat coronary artery endothelin receptors *in vivo*. *PLoS ONE* 7: e33008.
3. Busnadiego, O., et al. 2015. A pathogenetic role for endothelin-1 in peritoneal dialysis-associated fibrosis. *J. Am. Soc. Nephrol.* 26: 173-182.
4. Henique, C., et al. 2015. Nuclear factor erythroid 2-related factor 2 drives podocyte-specific expression of peroxisome proliferator-activated receptor γ essential for resistance to crescentic GN. *J. Am. Soc. Nephrol.* E-published.

PROTOCOLS

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