SANTA CRUZ BIOTECHNOLOGY, INC.

# ETBR (N-21): sc-21199

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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 glomular 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.

## REFERENCES


1. Adachi, M., et al. 1991. Cloning and characterization of cDNA encoding human A-type endothelin receptor. Biochem. Biophys. Res. Commun. 180: 1265-1272.
2. Puffenberger, E.G., et al. 1994. A missense mutation of the endothelin B receptor gene in multigenic Hirschsprung's disease. Cell 79: 1257-1266.
3. Gariepy, C.E., et al. 1996. Null mutation of endothelin receptor type B gene in spotting lethal rats causes aganglionic megacolon and white coat color. Proc. Natl. Acad. Sci. USA 93: 867-872.


## CHROMOSOMAL LOCATION

Genetic locus: EDNRB (human) mapping to 13q22.3; Ednrb (mouse) mapping to 14 E2.3.

## SOURCE

ETBR (N-21) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ETBR of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-21199 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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

ETBR (N-21) is recommended for detection of ETBR isoforms 1, 2 and δ 3 of mouse and 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).

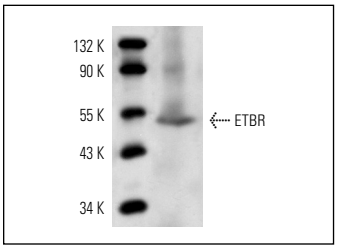
ETBR (N-21) is also recommended for detection of ETBR isoforms 1, 2 and δ 3 in additional species, including canine.

Suitable for use as control antibody for ETBR siRNA (h): sc-39962, ETBR siRNA (m): sc-39963, ETBR shRNA Plasmid (h): sc-39962-SH, ETBR shRNA Plasmid (m): sc-39963-SH, ETBR shRNA (h) Lentiviral Particles: sc-39962-V and ETBR shRNA (m) Lentiviral Particles: sc-39963-V.

Molecular Weight of ETBR: 50 kDa.

Positive Controls: mouse heart extract: sc-2254 or mouse embryo extract: sc-364239.

## DATA




ETBR (N-21): sc-21199. Western blot analysis of ETBR expression in mouse heart tissue extract.

## SELECT PRODUCT CITATIONS


1. Henno, P., et al. 2009. Pulmonary vascular dysfunction in end-stage cystic fibrosis: role of NFκB and endothelin-1. Eur. Respir. J. 34: 1329-1337.
2. van den Heuvel, M., et al. 2012. Coronary microvascular dysfunction in a porcine model of early atherosclerosis and diabetes. Am. J. Physiol. Heart Circ. Physiol. 302: H85-H94.


## RESEARCH USE

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