

ET-1 (N-8)-R: sc-21625-R

BACKGROUND

The human endothelins represent a gene family comprised of endothelin-1, endothelin-2 and endothelin-3, also known as ET-1, ET-2 and ET-3. Endothelins can affect the central nervous system and neuronal excitability, and they elicit potent vasoconstrictor action. The two receptor subtypes responsible for inducing vasoconstriction and vasodilation, ETA and ETB, have different receptor affinities for ET-1, ET-2 and ET-3. Of the 3 isopeptides, ET-2 has the most potent vasoconstrictor activity. Biologically active ET's are proteolytically generated from a larger precursor, the big-endothelin, by action of the endothelin-converting enzyme (ECE) family. ET-1 is a potent, 21-amino acid vasoconstrictor peptide produced by vascular endothelial cells. The ET-2 cDNA is 1.3 kb in length and encodes a proprotein consisting of 178 amino acid residues. ET3 mRNA encodes a 230-amino acid precursor that includes ET3 and a 15-amino acid homologous segment called the ET3-like sequence.

CHROMOSOMAL LOCATION

Genetic locus: EDN1 (human) mapping to 6p24.1; Edn1 (mouse) mapping to 13 A4.

SOURCE

ET-1 (N-8)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of endothelin-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-21625 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ET-1 (N-8)-R is recommended for detection of ET-1 precursor and processed active peptide of mouse, rat 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), immunohistochemistry (including paraffin-embedded sections) (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 ET-1 siRNA (h): sc-45394, ET-1 siRNA (m): sc-45395, ET-1 siRNA (r): sc-270091, ET-1 shRNA Plasmid (h): sc-45394-SH, ET-1 shRNA Plasmid (m): sc-45395-SH, ET-1 shRNA Plasmid (r): sc-270091-SH, ET-1 shRNA (h) Lentiviral Particles: sc-45394-V, ET-1 shRNA (m) Lentiviral Particles: sc-45395-V and ET-1 shRNA (r) Lentiviral Particles: sc-270091-V.

Molecular Weight of ET-1: 24 kDa.

Positive Controls: HT-1080 cell lysate: sc-364183, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

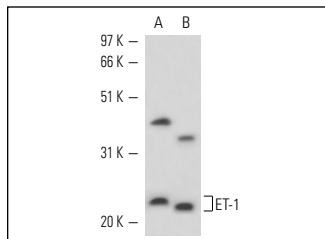
RESEARCH USE

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

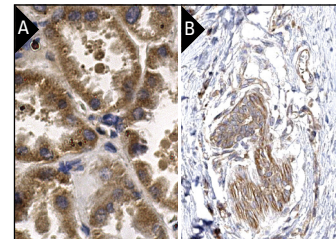
STORAGE

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

DATA



ET-1 (N-8): sc-21625. Western blot analysis of ET-1 expression in HT-1080 (A) and Hep G2 (B) whole cell lysates.



ET-1 (N-8): sc-21625. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing cytoplasmic and extracellular staining of cell. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

- Rodella, L.F., et al. 2010. Endothelin-1 as a potential marker of melatonin's therapeutic effects in smoking-induced vasculopathy. *Life Sci.* 87: 558-564.
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- Reijerkerk, A., et al. 2011. Brain endothelial barrier passage by monocytes is controlled by the endothelin system. *J. Neurochem.* 121: 730-737.
- Zhang, Y., et al. 2012. Establishment of animal model of dual liver transplantation in rat. *PLoS ONE* 7: e40818.
- Liu, B., et al. 2013. Astrocyte elevated gene-1 regulates osteosarcoma cell invasion and chemoresistance via endothelin-1/endothelin A receptor signaling. *Oncol. Lett.* 5: 505-510.
- Zhou, Y., et al. 2013. TWIST interacts with endothelin-1/endothelin A receptor signaling in osteosarcoma cell survival against cisplatin. *Oncol. Lett.* 5: 857-861.
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