



ET-1 (1C10): sc-57116

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 three isopeptides, ET-2 has the most potent vasoconstrictor activity. Biologically active ETs 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. ET-3 mRNA encodes a 230 amino acid precursor that includes ET-3 and a 15 amino acid homologous segment called the ET-3-like sequence.

REFERENCES

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5. Inoue, A., et al. 1989. The human preproendothelin-1 gene. Complete nucleotide sequence and regulation of expression. *J. Biol. Chem.* 264: 14954-14959.
6. Arinami, T., et al. 1991. Chromosomal assignments of the human endothelin family genes: the endothelin-1 gene (EDN1) to 6p23-p24, the endothelin-2 gene (EDN2) to 1p34, and the endothelin-3 gene (EDN3) to 20q13.2-q13.3. *Am. J. Hum. Genet.* 48: 990-996.
7. Nguyen, B.N., et al. 1998. The role of endothelin in heart failure and hypertension. *Pharmacotherapy* 18: 706-719.
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9. Romanelli, R.G., et al. 2005. Role of endothelin-1 in the migration of human olfactory gonadotropin-releasing hormone-secreting neuroblasts. *Endocrinology* 146: 4321-4330.

CHROMOSOMAL LOCATION

Genetic locus: EDN1 (human) mapping to 6p24.1.

SOURCE

ET-1 (1C10) is a mouse monoclonal antibody raised against amino acids 1-21 of ET-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ET-1 (1C10) is recommended for detection of ET-1 of human origin by solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:100-1:5000).

Suitable for use as control antibody for ET-1 siRNA (h): sc-45394, ET-1 shRNA Plasmid (h): sc-45394-SH and ET-1 shRNA (h) Lentiviral Particles: sc-45394-V.

Molecular Weight of ET-1: 24 kDa.

SELECT PRODUCT CITATIONS

1. An, Q., et al. 2017. Oleanolic acid alleviates diabetic rat carotid artery injury through the inhibition of NLRP3 inflammasome signaling pathways. *Mol. Med. Rep.* 16: 8413-8419.

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.

PROTOCOLS

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