

ET-2 (C-8): sc-21627

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. The human endothelin-1, 2 and 3 genes (EDN1, EDN2 and EDN3) map to chromosome 6p24, 1p34.2 and 20q13, respectively. 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.

REFERENCES

- Inoue, A., et al. 1989. The human preproendothelin-1 gene. Complete nucleotide sequence and regulation of expression. *J. Biol. Chem.* 264: 14954-14959.
- 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.
- Online Mendelian Inheritance in Man, OMIM[™]. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 131241. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: EDN2 (human) mapping to 1p34.2.

SOURCE

ET-2 (C-8) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of endothelin-2 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-21627 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

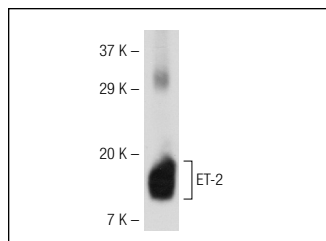
ET-2 (C-8) is recommended for detection of endothelin-2 precursor and processed active peptide of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting 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-2 siRNA (h): sc-45396, ET-2 shRNA Plasmid (h): sc-45396-SH and ET-2 shRNA (h) Lentiviral Particles: sc-45396-V.

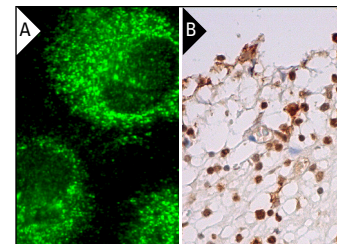
Molecular Weight of ET-2: 20 kDa.

Positive Controls: rat lung extract: sc-2396.

DATA



ET-2 (C-8): sc-21627. Western blot analysis of ET-2 expression in rat lung tissue extract.



ET-2 (C-8): sc-21627. Immunofluorescence staining of formalin-fixed HepG2 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing nuclear and cytoplasmic staining of hematopoietic cells (B).

RESEARCH USE

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



Try **ET-2 (3B4-1C5): sc-293248**, our highly recommended monoclonal alternative to ET-2 (C-8).