SANTA CRUZ BIOTECHNOLOGY, INC.

pan ET (HPEH10): sc-69929

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Endothelins (ETs) exhibit strong constrictor activity over non-vascular and vascular smooth muscle. ETs can affect the central nervous system and neuronal excitability. The two receptor subtypes responsible for inducing vasoconstriction and vasodilation, ETA and ETB, are expressed in the lung, kidney, heart and liver. The genes encoding human ET-1, -2 and -3 (EDN1, EDN2 and EDN3) map to chromosomes 6p23-p24, 1p34 and 20q13.2-q13.3, respectively. Of the three 21 amino acid isopeptides, ET-2 has the most potent vasoconstrictor activity. Biologically active ETs are proteolytically generated from a larger precursor, big-endothelin, by action of the endothelin-converting enzyme (ECE) family. ET-1 is a potent 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. Pan ET antibodies provide detection for a range of endothelin proteins.

REFERENCES

1. Inoue, A., Yanagisawa, M., Takuwa, Y., Mitsui, Y., Kobayashi, M. and Masaki, T. 1989. The human preproendothelin-1 gene. Complete nucleotide sequence and regulation of expression. J. Biol. Chem. 264: 14954-14959.
2. Federation of American societies for experimental biology. 1991. 75th annual meeting. Atlanta, Georgia, April 21-25, 1991. Part I. Abstracts. FASEB J. 5: A371-915.
3. Rubanyi, G.M. and Botelho, L.H. 1991. Endothelins. FASEB J. 5: 2713-2720.
4. Arinami, T., Ishikawa, M., Inoue, A., Yanagisawa, M., Masaki, T., Yoshida, M.C. and Hamaguchi, H. 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.
5. Deng, Y., Savage, P., Shetty, S.S., Martin, L.L. and Jeng, A.Y. 1992. Identification and partial purification of a thiol endothelin-converting enzyme from porcine aortic endothelial cells. J. Biochem. 111: 346-351.
6. Nguyen, B.N. and Johnson, J.A. 1998. The role of endothelin in heart failure and hypertension. Pharmacotherapy 18: 706-719.
7. 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/
8. Giannessi, D., Del Ry, S. and Vitale, R.L. 2001. The role of endothelins and their receptors in heart failure. Pharmacol. Res. 43: 111-126.

SOURCE

pan ET (HPEH10) is a mouse monoclonal antibody raised against C-terminal Endothelin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 in 1.0 mL PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

pan ET (HPEH10) is recommended for detection of ET-1, ET-2 and ET-3 of human origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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 or our catalog for detailed protocols and support products.