

Rat Endothelin 1 protein, His tag (active)

Cat. No. GTX00345-pro

Applications Functional Assay**Species** Rat**Package**

10 µg

Applications

Application Note

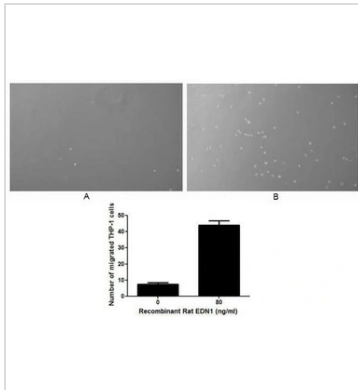
Endothelins (EDN) are small (21 amino acids) vasoactive peptides produced by many cell types including endothelial and epithelial cells, macrophages and fibroblasts. By binding to G-protein-linked transmembrane receptors, EDNs participate in vasoconstriction modulation and cell growth regulation. It has been proven that EDN1 has chemotaxis active on monocytes, thus chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of EDN1 on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (100 µl cell suspension, 1×10^6 cells/ml in RPMI-1640 with 0.5% FBS) and EDN1 (20 ng/ml, 40 ng/ml and 80 ng/ml diluted separately in serum free RPMI-1640) was added in lower chamber with a polycarbonate filter (8 µm pore size) used to separate the two compartments. After incubation at 37°C with 5% CO₂ for 3h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification ($\times 100$) and the number of migrated cells were counted at high magnification ($\times 400$) randomly. EDN1 is able to induce migration of THP-1 cells, and the optimum chemotaxis of EDN1 occurs at 80 ng/ml.

Observed MW (kDa) 19 kDa.

Properties

Form Lyophilized powder**Buffer** Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.**Preservative** ProClin 300**Storage** For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.**Region/Sequence** N-terminal His-Tag; Ser54~His202 (NP_036680.1)**Expression System** E. coli**Purity** > 95%**Endotoxin** < 1 EU/µg**Conjugation** Unconjugated**Note** For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

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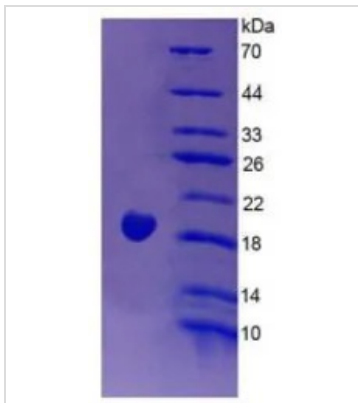
DATA IMAGES

GTx00345-pro Functional Assay Image

The chemotactic effect of GTX00345-pro Rat Endothelin 1 protein (active).

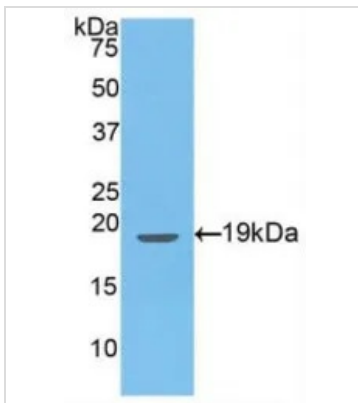
Upper: (A) THP-1 cells were seeded into the upper chambers and serum free RPMI-1640 without EDN1 was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 100$) after incubation for 3hrs.

(B) THP-1 cells were seeded into the upper chambers and serum free RPMI-1640 with 80 ng/ml EDN1 was added in lower chamber, then cells in lower chamber were observed at low magnification ($\times 100$) after incubation for 3hrs.

Lower: The number of migrated cells were counted at high magnification ($\times 400$) randomly (five fields for each filter).


GTx00345-pro Image

SDS-PAGE analysis of GTX00345-pro Rat Endothelin 1 protein (active).


GTx00345-pro Image

WB analysis of GTX00345-pro Rat Endothelin 1 protein (active).



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