Proteins



Product Data Sheet

CXCR3 Protein, Human (Cell-Free, His)

Cat. No.: HY-P700539

Synonyms: G protein coupled receptor 9, GPR9; C-X-C chemokine receptor type 3; CD183; CKR L2; CMKAR3;

> IP10 R; MigR; CXC-R3; CXCR-3; Mig receptor; IP10 receptor; IP-10 receptor; G protein-coupled receptor 9; chemokine C-X-C receptor 3; interferon-inducible protein 10 receptor; GPR9; CD182;

Mig-R; CKR-L2; IP10-R;

Species: Human

Source: E. coli Cell-free Accession: P49682 (M1-L368)

Gene ID: 2833 Molecular Weight: 44.7 kDa

PROPERTIES

| AA | Sec | luen | ce |
|----|-----|------|----|
| | | | |

MVLEVSDHQV ENFSSSYDYG ENESDSCCTS LNDAEVAALL PPCPQDFSLN FDRAFLPALY SLLFLLGLLG NGAVAAVLLS RRTALSSTDT FLLHLAVADT LLVLTLPLWA VDAAVQWVFG SGLCKVAGAL FNINFYAGAL LLACISFDRY LNIVHATQLY RRGPPARVTL TCLAVWGLCL LFALPDFIFL SAHHDERLNA THCQYNFPQV GRTALRVLQL VAGFLLPLLV MAYCYAHILA VLLVSRGQRR LRAMRLVVV VVAFALCWTP YHLVVLVDIL MDLGALARNC GRESRVDVAK SVTSGLGYMH CCLNPLLYAF VGVKFRERMW MLLLRLGCPN QRGLQRQPSS SRRDSSWSET

SEASYSGL

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH₂O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The CXCR3 Protein functions as a receptor for the C-X-C chemokines CXCL9, CXCL10, and CXCL11, mediating the proliferation, survival, and angiogenic activity of human mesangial cells (HMC) through a heterotrimeric G-protein signaling pathway. Additionally, it binds to CCL21, potentially promoting cell chemotaxis response. CXCR3 also serves as a receptor for the C-X-C chemokine CXCL4, playing a role in mediating the inhibitory activities of CXCL9, CXCL10, and CXCL11 on the proliferation, survival, and angiogenic activity of human microvascular endothelial cells (HMVEC) through a cAMP-mediated signaling pathway. Interestingly, CXCR3 does not promote cell chemotaxis response but, upon interaction with CXCL4 or CXCL10, activates the p38MAPK pathway, contributing to the inhibition of angiogenesis. Notably, overexpression of CXCR3 in renal cancer cells down-regulates the expression of the anti-apoptotic protein HMOX1 and promotes apoptosis, indicating its involvement in modulating cellular processes relevant to cancer biology.

Caution: Product has not been fully validated for medical applications. For research use only.

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