

CXCR4 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P72674
Synonyms:	C-X-C chemokine receptor type 4; CXC-R4; LESTR; LAP-3; NPYRL; CD184; SDF-1 receptor
Species:	Human
Source:	HEK293
Accession:	P61073-1 (M1-S46)
Gene ID:	7852
Molecular Weight:	35-45 kDa

PROPERTIES

AA Sequence	M E G I S I Y T S D N Y T E E M G S G D Y D S M K E P C F R E E N A N F N K I F L P T I Y S
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCl, 100 mM Glycine, pH 7.5.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years from date of receipt. 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	<p>The CXCR4 Protein serves as a receptor for the C-X-C chemokine CXCL12/SDF-1, transmitting signals that increase intracellular calcium ion levels and enhance MAPK1/MAPK3 activation. It is actively involved in the AKT signaling cascade and plays a crucial role in regulating cell migration, particularly during processes like wound healing. Additionally, CXCR4 acts as a receptor for extracellular ubiquitin, leading to elevated intracellular calcium ions and reduced cellular cAMP levels. It also binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory responses, including TNF secretion by monocytes. Beyond its immunological functions, CXCR4 plays essential roles in hematopoiesis, cardiac ventricular septum formation, vascularization of the gastrointestinal tract, and cerebellar development. In the central nervous system, it may mediate hippocampal-neuron survival. Furthermore, in the context of microbial infection, CXCR4 acts as a coreceptor, alongside CD4, for human immunodeficiency virus-1 (HIV-1) X4 isolates and serves as a primary receptor for certain HIV-2 isolates, promoting viral fusion.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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