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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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CXCR4 (NT) (HIV and chemokine receptor). Rabbit Polyclonal Antibody
Anti-CXCR4 (Fusin, LESTR, HUMSTR) (N Terminal)

BACKGROUND

Human immunodeficiency virus (HIV) and related viruses require coreceptors, in addition to CD4, to infect target cells. Some G protein-coupled receptors including CCR5, CXCR4, CCR3, CCR2b and CCR8 in the chemokine receptor family, and four new human molecules GPR15, STRL33, GPR1 and V28 were recently identified as HIV coreceptors¹. Among them, CXCR4 (fusin, LESTR or HUMSTR) is a principal coreceptor for T-cell tropic strains of HIV-1 fusion and entry of human white blood cells^{2,3}. CXCR4 is also required for the infection by dual-tropic strains of HIV-1 and mediates CD-4 independent infection by HIV-2^{4,5}. The α -chemokine SDF-1 is the ligand for CXCR4 and prevents infection by T-tropic HIV-1^{6,7}. CXCR4 associates with the surface CD4-gp120 complex before HIV enters target cells⁸. CXCR4 messenger RNA levels correlated with HIV-1 permissiveness in diverse human cell types². Antibodies to CXCR4 block HIV-1 and HIV-2 fusion and infection of human target cells^{2,5,10}. The amino-terminal domain and the second extracellular loop of CXCR4 serve as HIV binding sites^{10,11}.

ORDERING INFORMATION

CATALOG NUMBER

X1149P

SIZE

100 μ g

FORM

Unconjugated

HOST/CLONE

Rabbit

FORMULATION

Provided in phosphate buffered saline solution containing 0.02% sodium azide as a preservative

CONCENTRATION

See vial for concentration

ISOTYPE

IgG

APPLICATIONS

Western Blot, Immunocytochemistry, Immunoprecipitation

SPECIES REACTIVITY

Human, Mouse

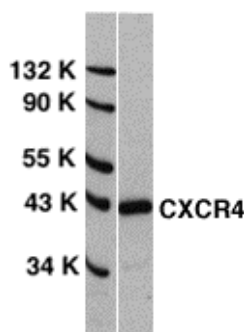
ACCESSION NUMBER

Human P61073

IMMUNOGEN

Synthetic peptide corresponding to amino acids 1 to 14 of the N terminal of the human CXCR4 receptor.

Western blot analysis using CXCR4 (NT) antibody at 0.25 μ g/ml on HeLa total cell lysate



POSITIVE CONTROL/TISSUE EXPRESSION

HeLa cell lysate

COMMENTS

Detects CXCR4 receptor by Western blot at 1-2 $\mu\text{g/ml}$. Detects an approximately 42 kDa band in HeLa cell lysate. Can also be used for immunoprecipitation and immunocytochemistry at 10 $\mu\text{g/ml}$. Optimal concentration should be evaluated by serial dilutions.

PURIFICATION

Antigen Immunoaffinity Purification

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C . Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Dimitrov, D.S. How do viruses enter cells? The HIV coreceptors teach us a lesson of complexity. *Cell* 1997, 91, 721-730
2. Feng, Y., et al. HIV-1 entry cofactor: functional cDNA cloning of a seven-transmembrane, G protein-coupled receptor. *Science* 1996, 272, 872-877
3. Berson, J.F., et al. A seven-transmembrane domain receptor involved in fusion and entry of T-cell-tropic human immunodeficiency virus type 1 strains. *J. Virol.* 1996, 70, 6288-6295
4. Doranz, B.J., et al. A dual-tropic primary HIV-1 isolate that uses fusin and the beta-chemokine receptors CKR-5, CKR-3, and CKR-2b as fusion cofactors. *Cell* 1996, 85, 1149-1158
5. Endres, M.J., et al. CD4-independent infection by HIV-2 is mediated by fusin/CXCR4. *Cell* 1996, 87, 745-756
6. Bleul, C.C., et al. The lymphocyte chemoattractant SDF-1 is a ligand for LESTR/fusin and blocks HIV-1 entry. *Nature* 1996, 382, 829-833
7. Oberlin, E., et al. The CXC chemokine SDF-1 is the ligand for LESTR/fusin and prevents infection by T-cell-line-adapted HIV-1. *Nature* 1996, 382, 833-835
8. Lapham, C.K., et al. Evidence for cell-surface association between fusin and the CD4-gp120 complex in human cell lines. *Science* 1996, 274, 602-605
9. Leoetscher, M., et al. Cloning of a human seven-transmembrane domain receptor, LESTR, that is highly expressed in leukocytes. *J. Biol. Chem.* 1994, 269, 232-237
10. Brelot, A., et al. Role of the first and third extracellular domains of CXCR-4 in human immunodeficiency virus coreceptor activity. *J. Virol.* 1997, 71, 4744-4751
11. Lu, Z., et al. Evolution of HIV-1 coreceptor usage through interactions with distinct CCR5 and CXCR4 domains. *Proc. Natl. Acad. Sci. USA* 1997, 94, 6426-6431

PRODUCT SPECIFIC REFERENCES