

Product datasheet for **TA336358**

CXCR4 Rabbit Polyclonal Antibody

Product data:

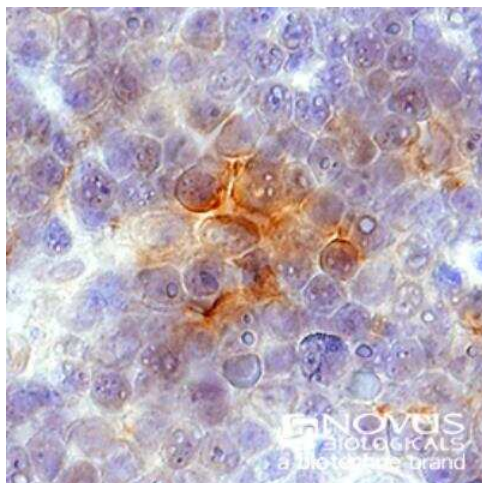
Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	Western Blot: 1 - 2 ug/mL, Immunohistochemistry: 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence, Knockdown Validated, Immunohistochemistry-Frozen), Immunohistochemistry-Paraffin: 1:10 - 1:500
Reactivity:	Human, Mouse, Rat, Sheep
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Rabbit anti-CXCR4 polyclonal antibody was raised against a peptide corresponding to amino acids 328-338 of human CXCR4.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Protein G purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	C-X-C motif chemokine receptor 4
Database Link:	NP_003458 Entrez Gene 12767 Mouse Entrez Gene 60628 Rat Entrez Gene 7852 Human P61073



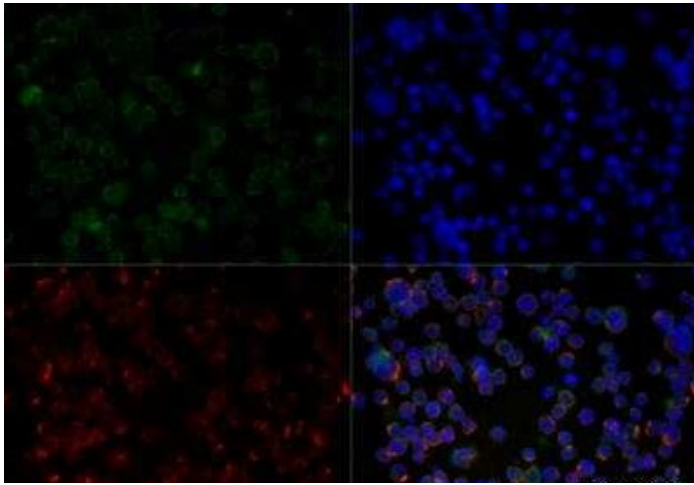
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- Background:** Human immunodeficiency virus (HIV) and related viruses require coreceptors, in addition to CD4, to infect target cells. Some G protein-coupled receptors including CCR5, CXCR4, CCR3, CCR2b and CCR8 in the chemokine receptor family, and 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 cells (8). CXCR4 messenger RNA levels correlated with HIV-1 permissiveness in diverse human cell types (2). 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).
- Synonyms:** CD184; D2S201E; FB22; HM89; HSY3RR; LAP-3; LAP3; LCR1; LESTR; NPY3R; NPYR; NPYRL; NPYY3R; WHIM
- Note:** Immunohistochemistry (cryosections): see Nimmagadda et al (2010) for details.
Immunohistochemistry (paraffin): see Zagzag (2005) and others for details.
- Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, GPCR, Transmembrane
- Protein Pathways:** Axon guidance, Chemokine signaling pathway, Cytokine-cytokine receptor interaction, Endocytosis, Leukocyte transendothelial migration

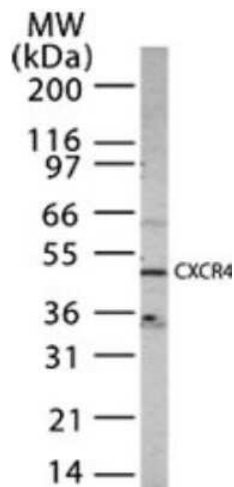
Product images:



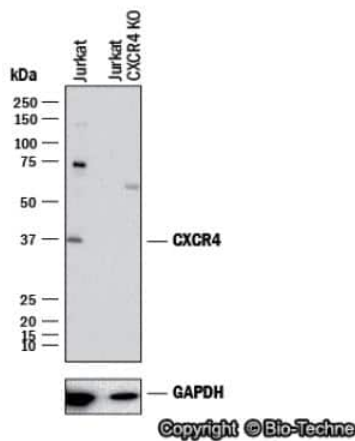
Immunohistochemistry-Paraffin: CXCR4 Antibody TA336358 - CXCR4 was detected in immersion sections of human tonsil using rabbit anti-human antibody (Catalog # TA336358) at 1:300 dilution overnight at 4C. Tissue was stained using the VisuCyte anti-rabbit HRP polymer detection reagent with DAB chromogen (brown) and counterstained with hematoxylin (blue).



Immunocytochemistry/Immunofluorescence: CXCR4 Antibody TA336358 - Jurkat cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton X-100. The cells were incubated with anti-CXCR4 (TA336358) at a 1:25 dilution for 1 hour at room temperature and detected with an anti-rabbit DyLight 488 (Green) at a 1:500 dilution. Alpha tubulin was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse DyLight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Western Blot: CXCR4 Antibody TA336358 - Detection of 15 ug in HeLa cells with antibody concentration at 1 ug/mL.



Knockdown Validated: CXCR4 Antibody TA336358 - Western blot shows lysates of Jurkat human T lymphocyte parental cell line and CXCR4 knockout (KO) Jurkat cell line. PVDF membrane was probed with 1 ug/ml of Rabbit Anti-Human CXCR4 Polyclonal Antibody (Catalog # TA336358) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog #HAF008). Specific band was detected for CXCR4 at approximately 38 kDa (as indicated) in the parental Jurkat cell line, but is not detectable in the knockout Jurkat cell line. This experiment was conducted under reducing conditions.