

#3740 Store at -20°C

SDF1/CXCL12 Antibody



Cell Signaling
TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R	Recombinant protein	9	Rabbit	#P48061	6387

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

SDF1/CXCL12 Antibody detects recombinant SDF1/CXCL12 protein and is expected to recognize both SDF1/CXCL12α and SDF1/CXCL12β isoforms.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln80 of human SDF1/CXCL12. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The stromal cell derived factor 1 (SDF1/CXCL12) is a small, pro-inflammatory chemoattractant cytokine that regulates leukocyte trafficking through interactions with its cognate 7-transmembrane G protein-coupled receptors (1). The SDF1/CXCL12 receptor, CXCR4, also serves as a coreceptor for the entry of human immunodeficiency virus into target cells (2). SDF1/CXCL12 may regulate homing and maintenance of CXCR4-expressing stem or progenitor cells, including embryonic and many somatic stem cells (3,4). Many cancer cells express CXCR4, suggesting that SDF1/CXCL12 plays a role in cancer metastasis (5,6). Alternative splicing and differential processing during maturation produce a pair of SDF1/CXCL12 isoforms (SDF1/CXCL12α and SDF1/CXCL12β) that have different properties and biological activities (7). Additional isoforms of SDF1/CXCL12 have been reported (8,9).

Background References

1. Maekawa, T. and Ishii, T. (2000) *Intern Med* 39, 90-100.
2. Ray, N. and Doms, R.W. (2006) *Curr Top Microbiol Immunol* 303, 97-120.
3. Sugiyama, T. et al. (2006) *Immunity* 25, 977-88.
4. Ara, T. et al. (2003) *Immunity* 19, 257-67.
5. Kucia, M. et al. (2004) *J Mol Histol* 35, 233-45.
6. Ratajczak, M.Z. et al. (2006) *Leukemia* 20, 1915-24.
7. De La Luz Sierra, M. et al. (2004) *Blood* 103, 2452-9.
8. Gleichmann, M. et al. (2000) *Eur J Neurosci* 12, 1857-66.
9. Yu, L. et al. (2006) *Gene* 374, 174-9.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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