SANTA CRUZ BIOTECHNOLOGY, INC.

# fractalkine (H-300): sc-20730

## BACKGROUND

Chemokines are members of a superfamily of inducible, secreted, proinflammatory cytokines. Members of the chemokine family exhibit 20 to 50% homology in their predicted amino acid sequences and are divided into four subfamilies. In the subfamily designated C-C or β, the first two cysteines are adjacent. In the C-X-C or α subfamily, the first two of four cysteine residues are separated by a single amino acid. C subfamily members, also designated γ chemokines, lack the first and third cysteine residues of the conserved motif. Chemokines in these three subfamilies are small, secreted proteins. Fractalkine, also designated neurotactin, is the first characterized member of a fourth chemokine subfamily. Fractalkine contains a novel C-X3-C motif in which the first two cysteines are separated by three amino acid residues. Fractalkine mRNA has been detected in brain and heart and is upregulated in microglia and endothelial cells by inflammatory signals. The protein exists both as a membrane-bound form and as a chemotactic soluble form.

## REFERENCES


1. Oppenheim, J.J., et al. 1991. Properties of the novel proinflammatory supergene "intercrine" cytokine family. Annu. Rev. Immunol. 9: 617-648.
2. Miller, M.D., et al. 1992. Biology and biochemistry of the chemokines: a family of chemotactic and inflammatory cytokines. Crit. Rev. Immunol. 12: 17-46.
3. Taub, D.D., et al. 1993. Review of the chemokine meeting of the Third International Symposium of Chemotactic Cytokines. Cytokine 5: 175-179.
4. Schall, T.J., et al. 1994. Chemokines, leukocyte trafficking, and inflammation. Curr. Opin. Immunol. 6: 865-873.
5. Taub, D.D., et al. 1996. β chemokines costimulate lymphocyte cytolysis, proliferation, and lymphokine production. J. Leuk. Biol. 59: 53-60.
6. Bazan, J.F., et al. 1997. A new class of membrane-bound chemokine with a C-X3-C motif. Nature 385: 640-644.
7. Pan, Y., et al. 1997. Neurotactin, a membrane-anchored chemokine upregulated in brain inflammation. Nature 387: 611-616.


## CHROMOSOMAL LOCATION

Genetic locus: CX3CL1 (human) mapping to 16q21; Cx3cl1 (mouse) mapping to 8 C5.

## SOURCE

fractalkine (H-300) is a rabbit polyclonal antibody raised against amino acids 98-397 mapping at the C-terminus of fractalkine of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

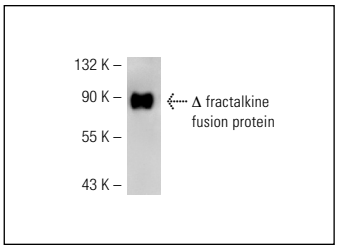
## APPLICATIONS

fractalkine (H-300) is recommended for detection of fractalkine of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

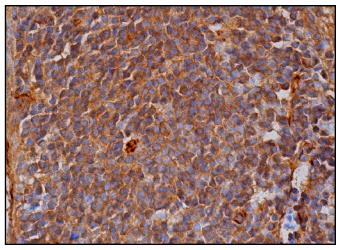
Suitable for use as control antibody for fractalkine siRNA (h): sc-43771, fractalkine siRNA (m): sc-145235, fractalkine shRNA Plasmid (h): sc-43771-SH, fractalkine shRNA Plasmid (m): sc-145235-SH, fractalkine shRNA (h) Lentiviral Particles: sc-43771-V and fractalkine shRNA (m) Lentiviral Particles: sc-145235-V.

Molecular Weight of fractalkine: 76 kDa.

## DATA




fractalkine (H-300): sc-20730. Western blot analysis of truncated human recombinant fractalkine fusion protein.



fractalkine (H-300): sc-20730. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic staining of cells in germinal and non-germinal centers.

## SELECT PRODUCT CITATIONS


1. Merino, J., et al. 2009. Splanchnic-brain crosstalk mediated by chemokines in portal hypertensive rats. Internet J. Gastroenterol. E-published.


## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.