

Fractalkine/CX3CL1 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P72686
Synonyms:	Fractalkine; C-X3-C motif chemokine 1; Neurotactin; CX3CL1; FKN; NTT; SCYD1
Species:	Mouse
Source:	HEK293
Accession:	O35188 (Q25-R337)
Gene ID:	20312
Molecular Weight:	Approximately 55-85 kDa

PROPERTIES

AA Sequence	<pre> Q H L G M T K C E I M C D K M T S R I P V A L L I R Y Q L N Q E S C G K R A I V L E T T Q H R R F C A D P K E K W V Q D A M K H L D H Q A A A L T K N G G K F E K R V D N V T P G I T L A T R G L S P S A L T K P E S A T L E D L A L E L T T I S Q E A R G T M G T S Q E P P A A V T G S S L S T S E A Q D A G L T A K P Q S I G S F E A A D I S T T V W P S P A V Y Q S G S S W A E E K A T E S P S T T A P S P Q V S T T S P S T P E E N V G S E G Q P P W V Q G Q D L S P E K S L G S E E I N P V H T D N F Q E R G P G N T V H P S V A P I S S E E T P S P E L V A S G S Q A P K I E E P I H A T A D P Q K L S V L I T P V P D T Q A A T R </pre>
Biological Activity	Measured by its ability to chemoattract THP-1 human acute monocytic leukemia cells. The ED ₅₀ this effect is 9.640 ng/mL, corresponding to a specific activity is 103734.440 U/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4 or PBS, pH 7.4.
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	Fractalkine/CX3CL1 protein functions as a versatile chemokine, serving as a ligand for both CX3CR1 and integrins
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ITGAV:ITGB3 and ITGA4:ITGB1. The CX3CR1-CX3CL1 signaling axis manifests distinct functions in various tissue compartments, including immune response modulation, inflammation regulation, cell adhesion, and chemotaxis. In the context of endothelial interactions, Fractalkine/CX3CL1 plays a pivotal role in regulating leukocyte adhesion and migration processes. Notably, it can activate integrins in a CX3CR1-dependent or CX3CR1-independent manner, binding to both the classical ligand-binding site (site 1) and a distinct site (site 2) on integrins. In the presence of CX3CR1, it activates integrins directly through site 1, while in the absence of CX3CR1, it binds to site 2, enhancing the binding of other integrin ligands to site 1. Additionally, the soluble form of Fractalkine/CX3CL1 demonstrates chemotactic properties for T-cells and monocytes, albeit not for neutrophils.

Caution: Product has not been fully validated for medical applications. For research use only.

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