

Recombinant Rat Fractalkine/CX3CL1

Information

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| Gene ID | 89808 |
| Accession # | O55145 |
| Alternate Names | CX3C Membrane-anchored Chemokine, Neurotactin, Small-inducible Cytokine D1 |
| Source | Escherichia coli. |
| M.Wt | Approximately 8.8 kDa, a single non-glycosylated polypeptide chain containing 76 amino acids and comprises only the chemokine domain of Rat Fractalkine. |
| AA Sequence | QHLGMTKCNI TCHKMTSPIP VTLLIHYQLN QESCGKRAII LETRQHRHFC ADPKEKWVQD AMKHLDHQTA ALTRNG |
| Appearance | Sterile Filtered White lyophilized (freeze-dried) powder. |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution |
| Formulation | Lyophilized from a 0.2 µm filtered concentrated solution in 2× PBS, pH 7.4. |
| Reconstitution | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions. |
| Biological Activity | Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human monocytes is in a concentration of 5.0-10 ng/ml. |
| Shipping Condition | Gel pack. |
| Handling | Centrifuge the vial prior to opening. |
| Usage | For Research Use Only! Not to be used in humans. |

Components and Storage

| Components | 5µg | 100µg | 500µg |
|------------------------------------|-----|-------|-------|
| Recombinant Rat Fractalkine/CX3CL1 | 5µg | 100µg | 500µg |

Use a manual defrost freezer and avoid repeated freeze-thaw cycles

- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

| | |
|-----------|---|
| Purity | > 95 % by SDS-PAGE and HPLC analyses. |
| Endotoxin | Less than 1 EU/μg of rRtFractalkine/CX3CL1 as determined by LAL method. |

Description

CX3CL1 recently identified through bioinformatics is the only known member of the CX3C chemokine family and it is also commonly known under the names fractalkine (in humans) and neurotactin (in mice). Unlike other known chemokines, CX3CL1 is a type 1 membrane protein containing a chemokine domain tethered on a long mucinlike stalk. The soluble form of CX3CL1 is chemotactic for T-cells and monocytes, but not for neutrophils. In addition, it may play a role in regulating leukocyte adhesion and migration processes at the endothelium. Recombinant Rat CX3CL1 contains 76 amino acids and it shares approximately 86 % and 83 % amino acid sequence homology with the murine and human protein.

Reference

1. Umehara H, Bloom ET, Okazaki T, et al. 2004. Arterioscler Thromb Vasc Biol. 24:34-40
2. Umehara H, Tanaka M, Sawaki T, et al. 2006. Mod Rheumatol. 16:124-30
3. Bazan JF, Bacon KB, Hardiman G, et al. 1997. Nature. 385:640-4
4. Mizoue LS, Bazan JF, Johnson EC, et al. 1999. Biochemistry. 38:1402-14.

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