# Recombinant Mouse CXCL16 Extracellular Domain

Catalog Number: 1165-CX

## DESCRIPTION

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| **Source** | Mouse myeloma cell line, NS0-derived mouse CXCL16 protein<br>Asn27-Trp201, with a C-terminal 6-His tag<br>Accession # Q8BSU2.2 |
| **N-terminal Sequence Analysis** | Asn27 |
| **Predicted Molecular Mass** | 19.9 kDa |

## SPECIFICATIONS

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| **SDS-PAGE** | 35-40 kDa, reducing conditions |
| **Activity** | Measured by its ability to chemoattract BaF3 mouse pro-B cells transfected with mouse CXCR6. Matloubian, M. *et al.* (2000) Nat. Immunol. **1**:298.<br>The $ED_{50}$ for this effect is 4-20 ng/mL. |
| **Endotoxin Level** | <0.10 EU per 1 µg of the protein by the LAL method. |
| **Purity** | >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining. |
| **Formulation** | Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details. |

## PREPARATION AND STORAGE

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| **Reconstitution** | Reconstitute at 25 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 3 months, -20 to -70 °C under sterile conditions after reconstitution. |

## BACKGROUND

CXC chemokine ligand 16 (CXCL16) is a type I membrane protein containing a non-ELR motif-containing CXC chemokine domain in its extracellular region. Together with Fractalkine (CX3CL1), CXCL16 constitute the only two transmembrane chemokines within the superfamily. Mouse CXCL16 cDNA encodes a 246 amino acid (aa) precursor protein with a putative 26 aa residue signal peptide, an 88 aa residue chemokine domain, an 87 aa residue mucin-like spacer region, a 22 aa residue transmembrane domain, and a 23 aa residue cytoplasmic tail with a potential tyrosine phosphorylation and SH2 protein-binding site. Mouse and human CXCL16 share 49% overall aa identity and 70% similarity in the chemokine domains. Mouse CXCL16 is produced by dendritic cells in lymphoid organ T cell zones and by cells in the splenic red pulp both as membrane-bound and soluble forms. Based on northern blot analysis, CXCL16 is also expressed in some nonlymphoid tissues such as lung, small intestine and kidney. The functional receptor for CXCL16 has been identified as CXCR6 (also known as Bonzo, STRL33 or TYMSTR), a receptor previously shown to be a co-receptor for HIV entry. CXCL16 has also been independently cloned and named SRPSOX (scavenger receptor that binds phosphatidylserine and oxidized lipoprotein). It was shown to be a specific receptor for OxLDL but not LDL or acetyl-LDL (1 - 3).

**References:**


1. Matloubian, M. *et al.* (2000) Nature Immun. **1**:298.
2. Shimaoka, T. *et al.* (2000) J. Biol. Chem. **275**:40663.
3. Wilbanks, A. *et al.* (2001) J. Immun. **166**:5145.




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