**DESCRIPTION**

**Species Reactivity**  
Human

**Specificity**  
Detects human CXCL12/SDF-1 in direct ELISAs and Western blots.

**Source**  
Polyclonal Goat IgG

**Purification**  
Antigen Affinity-purified

**Immunogen**  
*E. coli*-derived recombinant human CXCL12/SDF-1α  
Lys22-Lys89  
Accession # Q6ICW0

**Endotoxin Level**  
<0.10 EU per 1 μg of the antibody by the LAL method.

**Formulation**  
Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Application</th>
<th>Recommended Concentration</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 μg/mL</td>
<td>Recombinant Human/Feline CXCL12/SDF-1β aa 19-93 (Catalog # 2716-SD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recombinant Human/Feline CXCL12/SDF-1β aa 22-93 (Catalog # 351-FS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recombinant Human/Feline/Rhesus Macaque CXCL12/SDF-1α (Catalog # 350-NS)</td>
</tr>
</tbody>
</table>

**Neutralization**  
Measured by its ability to neutralize CXCL12/SDF-1α-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human CXCR4. The Neutralization Dose (ND₅₀) is typically 1.5-6.0 μg/mL in the presence of 2 ng/mL Recombinant Human/Feline/Rhesus Macaque CXCL12/SDF-1α.

**DATA**

**Neutralization**  
Chemotaxis Induced by CXCL12/SDF-1β and Neutralization by Human CXCL12/SDF-1 Antibody. Recombinant Human/Feline/Rhesus Macaque CXCL12/SDF-1β (Catalog # 350-NS) chemoattracts the BaF3 mouse pro-B cell line transfected with human CXCR4 in a dose-dependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Human/Feline/Rhesus Macaque CXCL12/SDF-1β (2 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human CXCL12/SDF-1 Antibody (Catalog #AF-310-NA). The ND₅₀ is typically 1.5-6.0 μg/mL.

**PREPARATION AND STORAGE**

**Reconstitution**  
Reconstitute at 0.2 mg/mL in sterile PBS.

**Shipping**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

**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.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

CXCL12, also known as SDF-1 (stromal cell-derived factor 1) and PBSF (Pre-B cell growth stimulatory factor), is a member of the CXC chemokine superfamily. Two alternatively spliced mRNAs encode CXCL12α (89 aa residues) and CXCL12β (93 aa residues) that differ by the addition of 4 amino acids at the carboxy-terminus. Human and mouse CXCL12 are highly conserved. Mature human and mouse CXCL12 differ only by 1 amino acid.