## Anti-Human CXCR4 (Fusin) (azide-free/low endotoxin)

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Clone</th>
<th>Isotype</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT-2007</td>
<td>12G5</td>
<td>Mouse IgG2a</td>
<td>500 μg (1.0 mg/mL)</td>
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</tbody>
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### BACKGROUND:
The 12G5 mAb reacts with the chemokine receptor CXCR4, previously called Fusin or LESTER. CXCR4 is a seven transmembrane domain receptor, which is involved in the signaling of the chemokine, Stromal cell-derived factor-1 (SDF-1). SDF-1 is an efficacious chemoattractant for lymphocytes and monocytes but is inactive on neutrophils. CXCR4 expression on T cells and on macrophages and its absence on neutrophilic and eosinophilic granulocytes mirrors the chemotactic activity of SDF-1 for leukocyte subsets. The CXCR4 receptor was shown to serve as a cofactor for HIV-1 isolates that are tropic for T cell lines.

### PRODUCT:
Purified unconjugated immunoglobulin in phosphate buffered saline, pH 7.3. Endotoxin level is <0.01ng/μg of protein. Sterile filtered (0.22 micron).

### IMMUNOGEN:
SIV-infected SupT1 cells injected into Balb/c mice.

### PURIFICATION:
Purified by protein A/G affinity chromatography.

### SPECIFICITY:
The 12G5 mAb has been shown to block infection by certain isolates of HIV-1 and HIV-2. The 12G5 mAb is specific for CXCR4 and does not react with IL8R-A, CCR1, CCR2b, CCR3, CCR4, and CCR5. CXCR4 is upregulated in response to activation of PBMCs for 3-5 days with PHA. This antibody cross-reacts with cynomolgus monkey (Yoshino et al., 2000).

### APPLICATIONS:
For use in flow cytometry and immunohistochemical analyses of the CXCR4 receptor in human cell lines and tissues. Fixation with methanol and/or acetone was shown to destroy the epitope of the 12G5 mAb. 12G5 can be used to block SDF-1-induced chemotaxis and increases of intracellular calcium. The optimal antibody concentration should be determined for each specific application.

### STORAGE:
Store at 4°C for up to one month. For long term use, store in aliquots at -20°C. Avoid repeat freeze/thaw cycles.
REFERENCES:


