TECHNICAL DATA SHEET

CyFlow™ CD64 Purified
Anti-Hu; Clone 10.1

REF CV129072

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

<table>
<thead>
<tr>
<th>Antigen</th>
<th>CD64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative Names</td>
<td>FcyRI</td>
</tr>
<tr>
<td>Clone</td>
<td>10.1</td>
</tr>
<tr>
<td>Clonality</td>
<td>monoclonal</td>
</tr>
<tr>
<td>Format</td>
<td>Purified</td>
</tr>
<tr>
<td>Host / Isotype</td>
<td>Mouse / IgG1</td>
</tr>
<tr>
<td>Species Reactivity</td>
<td>Human, Non-Human Primates</td>
</tr>
<tr>
<td>Negative Species Reactivity</td>
<td>—</td>
</tr>
<tr>
<td>Quantity</td>
<td>0.1 mg [ 1 mg/ml ]</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Rheumatoid synovial fluid cells and fibronectin purified human monocytes</td>
</tr>
</tbody>
</table>

Specificity

The mouse monoclonal antibody 10.1 recognizes α subunit of CD64 antigen, a 72 kDa single chain type I glycoprotein, that is expressed on monocytes/macrophages, dendritic cells, and activated granulocytes.

Contact Information:
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Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Western blot
- Immunohistochemistry
- Immunocytochemistry
- Functional assays

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

<table>
<thead>
<tr>
<th>Storage</th>
<th>Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Do not use after expiration date stamped on vial label.</td>
</tr>
</tbody>
</table>

Background Information

CD64 (FcγRI) is a cell surface receptor for Fc region of IgG. It is composed of specific ligand binding α subunit and promiscuous γ subunit, which is indispensable for tyrosine-based signaling. However, even the α subunit can transduce signals leading to cellular effector functions. The isoform FcγRIa1 binds human IgG with high affinity, has limited myeloid cell distribution, and a relatively large intracellular domain. Products of related genes include FcγRIb and FcγRIc isoforms, but these specify low affinity IgG receptors if functionally expressed at all. Besides a role in antigen clearance, FcgammaRI (a1) can potently enhance MHC class I and II antigen presentation in vitro and in vivo.

References


• Fadlon E, Vordermeier S, Pearson TC, Mire-Sluis AR, Dumonde DC, Phillips J, Fishlock K, Brown KA: Blood polymorphonuclear leukocytes from the majority of sickle cell patients in the crisis phase of the disease show enhanced adhesion to vascular endothelium and increased expression of CD64. Blood. 1998 Jan 1; 91(1):266-74. < PMID: 9414294 >


• Devaraj S, Du Clos TW, Jialal I: Binding and internalization of C-reactive protein by Fcgamma receptors on human aortic endothelial cells mediates biological effects. Arterioscler Thromb Vasc Biol. 2005 Jul; 25(7):1359-63. < PMID: 15860734 >


The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.