

Application (Continued)

Immunocytochemistry

Functional Application

Blocking of IgG binding to the Fcγ₁R1

- Purity:** > 95% (by SDS-PAGE)
- Purification:** Purified from cell culture supernatant by protein-A affinity chromatography.
- Concentration:** 1 mg/ml
- Storage Buffer:** Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
- Storage / Stability:** Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles
- Background:** CD64 (Fcγ₁RI) is a cell surface receptor for Fc region of IgG. It is composed of specific ligand binding alpha subunit and promiscuous gamma subunit, which is indispensable for tyrosine-based signaling. However, even the alpha subunit can transduce signals leading to cellular effector functions. The isoform Fcγ₁RIa1 binds human IgG with high affinity, has limited myeloid cell distribution, and a relatively large intracellular domain. Products of related genes include Fcγ₁RIb and Fcγ₁RIc isoforms, but these specify low affinity IgG receptors if functionally expressed at all. Besides a role in antigen clearance, Fcγ₁RI (a1) can potently enhance MHC class I and II antigen presentation in vitro and in vivo.
- References:**
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- *Jayaram Y, Buckle AM, Hogg N: The Fc receptor, FcRI, and other activation molecules on human mononuclear phagocytes after treatment with interferon-gamma. *Clin Exp Immunol*. 1989 Mar;75(3):414-20.
- *And many other.

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