

Mouse IL-3 R α /CD123 Alexa Fluor® 647-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 151231

Catalog Number: FAB983R

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-3 R α /CD123 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human IL-3 R α and recombinant mouse IL-3 R β is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 151231
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse IL-3 R α /CD123 Ser17-Lys331 Accession # P26952
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Mouse splenocytes

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Interleukin 3 (IL-3) is a pleiotropic cytokine produced primarily by activated T cells or mast cells. IL-3 stimulates the proliferation and differentiation of hemopoietic cells including the pluripotent hematopoietic stem cells as well as various lineage-committed cells. The biological effects of IL-3 on the various cell types are mediated by the binding of IL-3 to specific cell surface receptor complexes. The functional high-affinity IL-3 receptor is a heterodimer consisting of a ligand binding α subunit and the β subunit. The α subunit alone binds IL-3 with low affinity. The β subunit is required for the high-affinity binding of IL-3 to the heterodimeric receptor complex. The β subunit has also been found to be a component of the high-affinity receptor complex for IL-5 and GM-CSF and is also referred to as the β common (β c) chain. In the mouse, there are two IL-3 R β proteins. The first identified mouse IL-3 R β was also called AIC2A and binds IL-3 with low affinity (1). The second mL-3 R β was referred to as AIC2B (2). AIC2B doesn't bind IL-3 and is the homolog of the human IL-3 R β . AIC2A was found to be the result of a gene duplication event. The mouse IL-3 R α , also called SUT-1, will form complexes with either mouse IL-3 R β protein (3). Both the α and the β subunits are members of the cytokine receptor superfamily.

References:

1. Itoh, N. *et al.* (1990) *Science* **247**:324.
2. Gorman, D.M. *et al.* (1990) *Proc. Natl. Acad. Sci. USA* **87**:5459.
3. Hara, T. and A. Miyajima (1992) *EMBO J.* **11**:1875.
4. Schrader, J.W. (2001) *Cytokine Reference*, Oppenheim, J.J. and M. Feldmann, eds, Academic Press, New York, p. 1899.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.