

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-3 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human IL-3 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse IL-3 Asp33-Cys166 Accession # P01586
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *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.

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

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 is a pleiotropic factor produced primarily by activated T cells that can stimulate the proliferation and differentiation of pluripotent hematopoietic stem cells as well as various lineage committed progenitors. In addition, IL-3 also affects the functional activity of mature mast cells, basophils, eosinophils and macrophages. Because of its multiple functions and targets, it was originally studied under different names, including mast cell growth factor P-cell stimulating factor, burst promoting activity, multi-colony stimulating factor, thy-1 inducing factor and WEHI-3 growth factor. In addition to activated T cells, other cell types such as human thymic epithelial cells, activated mouse mast cells, mouse keratinocytes and neurons/astrocytes can also produce IL-3. At the amino acid sequence level, mature human and mouse IL-3 share only 29% sequence identity. Consistent with this lack of homology, IL-3 activity is highly species-specific and human IL-3 does not show activity on mouse cells.

IL-3 exerts its biological activities through binding to specific cell surface receptors. The high affinity receptor responsible for IL-3 signaling is composed of α and β subunits. The IL-3R α is a member of the cytokine receptor super family and binds IL-3 with low affinity. Two distinct β subunits, AIC2A (β_{IL-3}) and AIC2B (β_c) are present in mouse cells. β_{IL-3} also binds IL-3 with low affinity and forms a high affinity receptor with the α subunit. The β_c subunits does not bind any cytokine but forms functional high affinity receptors with the α subunit of the IL-3, IL-5 and GM-CSF receptors. Receptors for IL-3 are present on bone marrow progenitors, macrophages, mast cells, eosinophils, megakaryocytes, basophils, and various myeloid leukemic cells.

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