

DESCRIPTION

Species Reactivity	Human/Primate
Specificity	Detects human and primate IL-2 in ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human IL-2 Ala21-Thr153 Accession # P60568
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

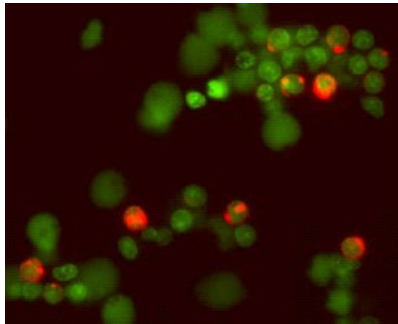
APPLICATIONS

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
Western Blot	0.1 µg/mL	Recombinant Human IL-2 (Catalog # 202-IL)
Immunocytochemistry	5-15 µg/mL	See Below
Human/Primate IL-2 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human/Primate IL-2 Antibody (Catalog # MAB602)
ELISA Detection Standard	0.1-0.4 µg/mL	Human/Primate IL-2 Biotinylated Antibody (Catalog # BAF202) Recombinant Human IL-2 (Catalog # 202-IL)

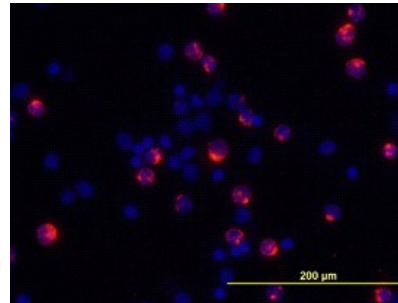
DATA

Immunocytochemistry



IL-2 in Human PBMCs. IL-2 was detected in immersion fixed human peripheral blood mononuclear cells (PBMCs) stimulated with PMA and ionomycin using 15 µg/mL Goat Anti-Human/Primate IL-2 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF202) for 3 hours at room temperature. Cells were stained (red) and counterstained (green). View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Immunocytochemistry



IL-2 in Human PBMCs. IL-2 was detected in immersion fixed PMA-, ionomycin-, and monensin-stimulated human peripheral blood mononuclear cells (PBMCs) using 10 µg/mL Goat Anti-Human/Primate IL-2 Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF202) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Streptavidin (red; Catalog # NL999) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Interleukin-2 (IL-2) is a O-glycosylated, four α -helix bundle cytokine that has potent stimulatory activity for antigen-activated T cells. It is expressed by CD4⁺ and CD8⁺ T cells, $\gamma\delta$ T cells, B cells, dendritic cells, and eosinophils (1 - 3). Mature human IL-2 shares 56% and 66% aa sequence identity with mouse and rat IL-2, respectively. Human and mouse IL-2 exhibit cross-species activity (4). The receptor for IL-2 consists of three subunits that are present on the cell surface in varying preformed complexes (5 - 7). The 55 kDa IL-2 Ra is specific for IL-2 and binds with low affinity. The 75 kDa IL-2 R β , which is also a component of the IL-15 receptor, binds IL-2 with intermediate affinity. The 64 kDa common gamma chain γ c/IL-2 R γ , which is shared with the receptors for IL-4, -7, -9, -15, and -21, does not independently interact with IL-2. Upon ligand binding, signal transduction is performed by both IL-2 R β and γ c. IL-2 is best known for its autocrine and paracrine activity on T cells. It drives resting T cells to proliferate and induces IL-2 and IL-2 Ra synthesis (1, 2). It contributes to T cell homeostasis by promoting the Fas-induced death of naive CD4⁺ T cells but not activated CD4⁺ memory lymphocytes (8). IL-2 plays a central role in the expansion and maintenance of regulatory T cells, although it inhibits the development of Th17 polarized cells (9 - 11). Thus, IL-2 may be a key cytokine in the natural suppression of autoimmunity (12, 13).

References:

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