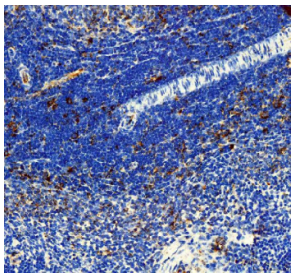
IL-3 Antibody / Interleukin 3 (R30840)

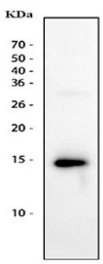
Catalog No.	Formulation	Size
R30840	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P08700
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This IL-3 antibody is available for research use only.



Immunohistochemical staining of FFPE rat spleen tissue with IL-3 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of recombinant human Interleukin 3 protein (10ng/lane) with IL-3 antibody.

Description

IL-3 antibody targets Interleukin 3, encoded by the IL3 gene. Interleukin 3 is a secreted cytokine that belongs to the hematopoietic growth factor family and plays a central role in regulating blood cell development and immune cell function. IL-3 is primarily produced by activated T lymphocytes, mast cells, and other immune cells following stimulation. As a soluble signaling molecule, Interleukin 3 acts in a paracrine and autocrine manner to influence the survival, proliferation, and differentiation of multiple hematopoietic lineages.

Functionally, Interleukin 3 is a multipotent cytokine that supports the growth and expansion of early hematopoietic progenitor cells in the bone marrow. It promotes the differentiation of myeloid cells, including basophils, eosinophils, monocytes, macrophages, and dendritic cells, and contributes to mast cell development. IL-3 exerts its biological effects through binding to the IL-3 receptor complex, composed of a specific alpha subunit and a shared beta subunit that is also used by other cytokines such as GM-CSF and IL-5. An IL-3 antibody supports research focused on cytokine signaling and hematopoietic regulation.

Expression of IL3 is tightly regulated and typically induced during immune activation rather than being constitutively expressed. IL-3 production is most commonly associated with activated T cells during immune responses, particularly those involving inflammation, allergy, or infection. Through its effects on progenitor cells and mature immune cells, Interleukin 3 contributes to shaping both innate and adaptive immune responses. Its activity is important for maintaining immune cell homeostasis under conditions of stress or immune challenge.

From a biological and disease-relevance perspective, Interleukin 3 has been implicated in a range of immune-mediated and hematologic disorders. Dysregulated IL-3 signaling has been associated with allergic inflammation, asthma, and other hypersensitivity reactions due to its role in basophil and mast cell biology. IL-3 has also been studied in the context of leukemia and other myeloid malignancies, where aberrant cytokine signaling can promote abnormal cell survival and proliferation. These properties have made IL-3 an important molecule of interest in studies of immune dysregulation and hematologic disease mechanisms.

At the molecular level, Interleukin 3 is synthesized as a precursor protein of approximately 17 to 18 kDa, though its apparent molecular weight can vary depending on glycosylation and processing. As a secreted cytokine, IL-3 does not contain transmembrane domains and functions through receptor-mediated signaling pathways that activate downstream transcriptional programs. An IL-3 antibody supports research applications focused on immune signaling, cytokine biology, and hematopoietic development, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Variations in secondary/substrate sensitivities and test protocols may require the IL-3 antibody to be titrated for optimal performance.

Immunogen

An amino acid sequence from the N-terminus of human Interleukin-3 (KDGDWNEFRRKLTFYLKTLENA) was used as the immunogen for this IL-3 antibody.

Storage

After reconstitution, the IL-3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.