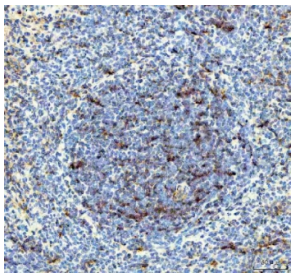
Rodent IL-18 Antibody / Mouse and Rat IL-18 Antibody (R31447)

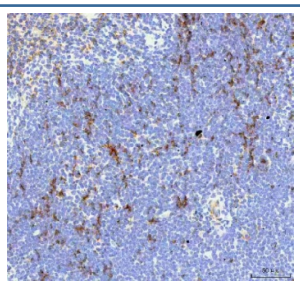
Catalog No.	Formulation	Size
R31447	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

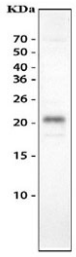
Availability	1-3 business days
Species Reactivity	Rat, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.005% sodium azide
Gene ID	29197
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Rodent IL-18 Antibody / Mouse and Rat IL-18 Antibody is available for research use only.



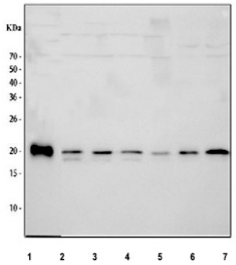
Rodent IL-18 Antibody Staining in Rat Spleen IHC. Immunohistochemistry staining of FFPE rat spleen using Rodent IL-18 Antibody shows heterogeneous brown staining in scattered cells throughout the splenic tissue, with stronger signal concentrated in subsets of cells within lymphoid regions. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. The staining demonstrates detection of IL-18 in rat spleen using this Mouse and Rat IL-18 Antibody.



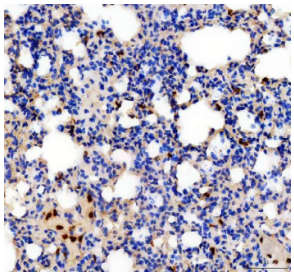
Rodent IL-18 Antibody Staining in Mouse Spleen IHC. Immunohistochemistry staining of FFPE mouse spleen using Rodent IL-18 Antibody shows heterogeneous brown staining in scattered cells distributed throughout the splenic tissue, with localized areas of stronger signal against a predominantly hematoxylin-stained background. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. This result demonstrates detection of IL-18 in mouse spleen using the Mouse and Rat IL-18 Antibody.



Rodent IL-18 Antibody Detects IL-18 in Mouse Spleen WB. Western blot analysis of mouse spleen tissue lysate using Rodent IL-18 Antibody shows a strong, discrete band migrating at approximately 20 kDa with minimal visible background. The observed molecular weight falls within the expected 17-24 kDa range for IL-18 and is consistent with a processed IL-18 species. The clean, predominant signal demonstrates detection of IL-18 in mouse spleen using this Mouse and Rat IL-18 Antibody.



Rodent IL-18 Antibody Detects IL-18 in Mouse and Rat Samples WB. Western blot analysis using Rodent IL-18 Antibody was performed with 1) recombinant mouse IL-18, 2) rat PC-12, 3) rat C6, 4) mouse RAW264.7, 5) mouse ANA-1, 6) mouse J774.1, and 7) mouse ID8 cell lysate. A strong predominant band is observed at approximately 20 kDa across all seven lanes, with a faint slightly lower band visible in some samples. The major band is consistent with processed IL-18 and demonstrates reproducible detection across both species using this Mouse and Rat IL-18 Antibody.



Rodent IL-18 Antibody Staining in Mouse Lung IHC. Immunohistochemistry staining of FFPE mouse lung using Rodent IL-18 Antibody shows heterogeneous brown staining in cells surrounding the pulmonary airspaces, with prominent cytoplasmic signal in subsets of cells. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. The observed staining demonstrates detection of IL-18 in mouse lung using this Mouse and Rat IL-18 Antibody.

Description

Rodent IL-18 Antibody recognizes interleukin 18 (IL-18), a proinflammatory cytokine of the IL-1 family that plays important roles in innate and adaptive immune responses. IL-18 is produced by several immune and non-immune cell populations and can influence natural killer cells, T lymphocytes, macrophages, and other cells involved in inflammatory responses. Originally identified as interferon gamma-inducing factor (IGIF), IL-18 can strongly enhance interferon gamma production, particularly when acting together with IL-12.

IL-18 is synthesized as an inactive precursor that requires proteolytic processing to generate the biologically active cytokine. Caspase-1 is an important mediator of this maturation process, linking IL-18 production to inflammasome activation. Mature IL-18 signals through a receptor complex containing IL18R1 and IL18RAP, leading to recruitment of MyD88 and activation of downstream pathways involving IRAK proteins, TRAF6, NF-kappaB, and MAPK signaling. These pathways contribute to inflammatory gene expression and immune-cell activation.

IL-18 activity is regulated by the surrounding cytokine environment and by IL-18 binding protein, a naturally occurring extracellular inhibitor that limits interaction between IL-18 and its receptor. Dysregulated IL-18 signaling is investigated in models of inflammatory and autoimmune disease, infection, metabolic disorders, and cancer. A Mouse and Rat IL-18 Antibody is particularly useful for studies employing rodent experimental systems to investigate cytokine expression, inflammasome-associated processes, and mechanisms connecting innate and adaptive immunity.

This Rodent IL-18 Antibody is a rabbit polyclonal generated against a recombinant fragment corresponding to amino acids 37-194 of rat IL-18. Rat and mouse IL-18 share a high degree of sequence similarity, and the antibody provides a reagent for investigating IL-18 expression in both rodent species. NSJ Bioreagents supplies this antibody for research use only.

A Rodent IL-18 Antibody can be used to investigate interleukin 18 expression in mouse and rat research models examining inflammasome activity, inflammatory signaling, innate immunity, and adaptive immune responses.

For an IL-18 monoclonal with complementary Western blot, IHC, and protein microarray validation, see our IL-18 Antibody IL18/4626 / IL18 Monoclonal Antibody page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Rodent IL-18 Antibody / Mouse and Rat IL-18 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Rat partial recombinant protein (AA 37-194) was used as the immunogen for this Rodent IL-18 Antibody.

Storage

After reconstitution, the Rodent IL-18 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

mouse IL-18 antibody, rat IL-18 antibody, mouse interleukin 18 antibody, rat interleukin 18 antibody, rodent interleukin 18 antibody, IGIF antibody

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