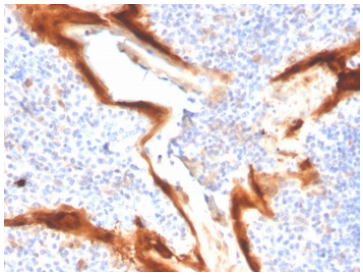
IL1RN Antibody IL1RA/4716 / Interleukin-1 Receptor Antagonist Antibody [clone IL1RA/4716] (V4908)

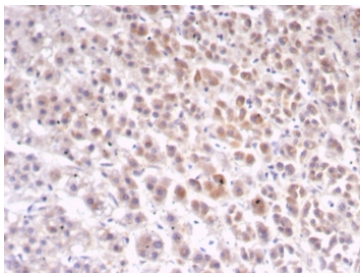
Catalog No.	Formulation	Size
V4908-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4908-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4908SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

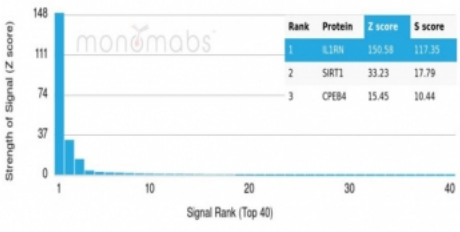
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	IL1RA/4716
Purity	Protein A/G affinity
UniProt	P18510
Localization	Cytoplasm, Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This IL1RN Antibody IL1RA/4716 / Interleukin-1 Receptor Antagonist Antibody is available for research use only.



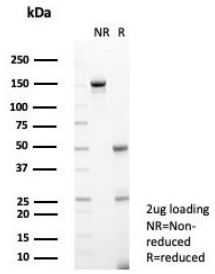
IL1RN Antibody IL1RA/4716 in Human Tonsil IHC. Immunohistochemistry of FFPE human tonsil tissue using IL1RN Antibody IL1RA/4716 demonstrates strong staining concentrated in epithelial structures, with substantially weaker staining among surrounding lymphoid cells. HIER was performed by boiling tissue sections in pH 9 10mM Tris containing 1mM EDTA for 20 min followed by cooling before testing. The distinct staining pattern demonstrates detection of interleukin-1 receptor antagonist by this Interleukin-1 Receptor Antagonist Antibody in human tonsil.



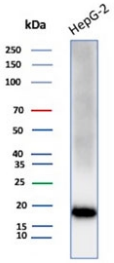
IL1RN Antibody IL1RA/4716 in Human Adrenal Gland IHC. Immunohistochemistry of FFPE human adrenal gland tissue using IL1RN Antibody IL1RA/4716 demonstrates widespread weak-to-moderate, predominantly cytoplasmic staining of adrenal cells, with heterogeneous staining intensity across the tissue. HIER was performed by boiling tissue sections in pH 9 10mM Tris containing 1mM EDTA for 20 min followed by cooling before testing. The staining demonstrates detection of interleukin-1 receptor antagonist by this Interleukin-1 Receptor Antagonist Antibody in human adrenal gland.



IL1RN Antibody IL1RA/4716 Protein Microarray Validated for IL1RN Specificity. Protein microarray analysis using IL1RN Antibody IL1RA/4716 on a HuProt array containing more than 19,000 full-length human proteins identifies IL1RN as the highest-ranked target with pronounced separation from the other array proteins. The Z-score measures signal strength in standard deviations above the mean array signal, while the S-score measures separation between the intended target and the next-ranked protein. The strong separation of IL1RN provides specificity validation for this Interleukin-1 Receptor Antagonist Antibody.



IL1RN Antibody IL1RA/4716 Purity by SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free IL1RN Antibody IL1RA/4716 under non-reducing (NR) and reducing (R) conditions demonstrates an intact antibody species at approximately 150 kDa under non-reducing conditions and the expected heavy and light chain components at approximately 50 and 25 kDa following reduction. The gel supports the integrity and purity of this Interleukin-1 Receptor Antagonist Antibody preparation.



IL1RN Antibody IL1RA/4716 Detects IL1RN in HepG2 Cells WB. Western blot analysis of human HepG2 cell lysate using IL1RN Antibody IL1RA/4716 detects a strong, discrete band at approximately 18-20 kDa, consistent with the predicted molecular weight of approximately 20 kDa. Minimal additional signal is visible across the remainder of the lane, demonstrating clean detection of interleukin-1 receptor antagonist by this Interleukin-1 Receptor Antagonist Antibody.

Description

IL1RN Antibody IL1RA/4716 recognizes interleukin 1 receptor antagonist (IL-1RA), a cytokine encoded by the IL1RN gene. IL1RN belongs to the interleukin 1 cytokine family and functions as an endogenous regulator of IL-1-mediated inflammatory signaling. Unlike the agonist cytokines IL-1 alpha and IL-1 beta, IL-1 receptor antagonist binds interleukin 1 receptors without initiating the same downstream signaling response, thereby limiting the biological activity of IL-1.

IL-1 receptor antagonist competes with IL-1 alpha and IL-1 beta for binding to interleukin 1 receptor type 1 (IL1R1). By occupying the receptor without promoting productive signaling, IL1RN can reduce activation of downstream pathways including NF-kappaB and MAPK signaling. This competitive antagonism provides an important mechanism for controlling the magnitude and duration of inflammatory responses and balancing proinflammatory IL-1 activity.

Alternative splicing of IL1RN produces multiple protein isoforms, including secreted and intracellular forms. These isoforms contribute to regulation of IL-1 signaling in different cellular contexts. The balance between IL-1 agonists and IL1RN can influence immune-cell activation, tissue responses to injury, and the resolution or persistence of inflammation. IL1RN has consequently been studied in innate immunity, inflammatory and autoinflammatory disease, tissue injury, and mechanisms that regulate cytokine activity.

Clone IL1RA/4716 is a mouse monoclonal antibody generated against a recombinant fragment within amino acids 1-200 of human IL1RN. The antibody has also been evaluated on a HuProt protein microarray containing more than 19,000 full-length human proteins to assess target specificity. As an Interleukin-1 Receptor Antagonist Antibody, clone IL1RA/4716 provides a defined monoclonal reagent for investigating this endogenous regulator of IL-1 signaling. NSJ Bioreagents supplies IL1RA/4716 for research use only.

An IL1RN Antibody can be used to investigate interleukin 1 receptor antagonist expression and molecular mechanisms controlling cytokine signaling, innate immune responses, and inflammation.

Explore our Immunology Antibodies page for additional reagents targeting cytokines and regulators of innate immune and inflammatory signaling.

Application Notes

Optimal dilution of the IL1RN Antibody IL1RA/4716 / Interleukin-1 Receptor Antagonist Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the IL1RN Antibody IL1RA/4716.

Storage

Aliquot the IL1RN Antibody IL1RA/4716 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

IL1RN antibody, IL1RA antibody, IL-1RA antibody, IL-1RN antibody, interleukin 1 receptor antagonist antibody, interleukin-1 receptor antagonist antibody, IL1F3 antibody, IL1 inhibitor antibody, IRAP antibody, ICIL-1RA antibody

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