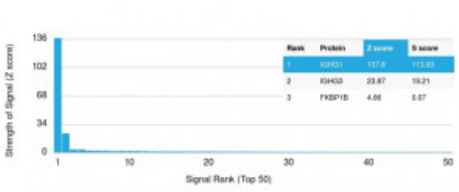
Human IgG Antibody IG507R / Rabbit Monoclonal [clone IG507R] (V7251)

Catalog No.	Formulation	Size
V7251-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7251-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7251SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7251IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

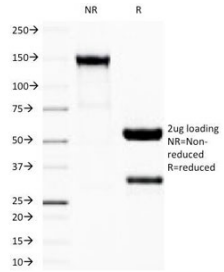
Recombinant RABBIT MONOCLONAL

Bulk quote request

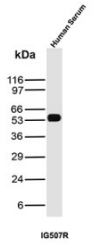
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	IG507R
Purity	Protein A affinity chromatography
UniProt	P01857
Localization	Cytoplasm, Cell Surface and Secreted
Applications	Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT Western blot: 2-4ug/ml
Limitations	This Human IgG Antibody IG507R is available for research use only.



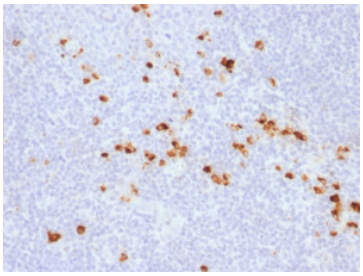
Human IgG Antibody IG507R Protein Microarray Validation. Protein microarray analysis of Human IgG Antibody clone IG507R against more than 19,000 full-length human proteins identifies IGHG1 as the top-ranked target with a Z-score of 137.8 and an S-score of 113.93. The next-ranked protein, IGHG3, produces a substantially lower Z-score of 23.87, demonstrating strong separation of the intended target from other array proteins. The Z-score measures signal strength in standard deviations above the array mean, while the S-score measures separation from the next-ranked protein; an S-score of at least 2.5 indicates target specificity. This rabbit monoclonal demonstrates highly selective recognition of human IGHG1 in the HuProt protein microarray.



SDS-PAGE Analysis of Purified, BSA-Free Recombinant IgG Antibody (clone IG507R). Confirmation of Integrity and Purity of the Antibody.



Human IgG Antibody IG507R Human Serum WB. Western blot analysis was performed using Human IgG Antibody IG507R on human serum lysate. A distinct immunoreactive band is detected at approximately 50-55 kDa, consistent with the expected molecular weight of the human IgG heavy chain. The blot exhibits a strong, specific signal with minimal background, supporting reliable detection of endogenous human IgG in serum samples. These results demonstrate that Human IgG Antibody IG507R is suitable for Western blot detection of human IgG in serum.



Human IgG Antibody IG507R Human Tonsil IHC. Immunohistochemistry was performed on FFPE human tonsil tissue using Human IgG Antibody IG507R. Heat-induced epitope retrieval was performed by steaming tissue sections in 10 mM citrate buffer (pH 6.0) for 10-20 minutes prior to staining. Strong cytoplasmic staining is observed in scattered plasma cells throughout the tonsillar lymphoid tissue, while the surrounding lymphocytes exhibit minimal background staining. This staining pattern is consistent with the expected expression of human IgG in antibody-producing plasma cells. These results demonstrate that Human IgG Antibody IG507R is suitable for immunohistochemical detection of human IgG in formalin-fixed, paraffin-embedded human tissues.

Description

Human IgG Antibody IG507R is a rabbit monoclonal antibody developed for the specific detection of human immunoglobulin G, the predominant antibody class in human serum and extracellular fluids. Human IgG is composed of two gamma heavy chains and two light chains that together mediate antigen recognition and numerous immune effector functions, including complement activation, opsonization, and Fc receptor engagement. The rabbit monoclonal format of clone IG507R provides excellent specificity, sensitivity, and lot-to-lot consistency, making Human IgG Antibody IG507R a dependable reagent for immunological and biomedical research. NSJ Bioreagents supplies this antibody for reliable detection of human IgG across a wide range of laboratory applications.

Human IgG is produced by plasma cells following antigen stimulation and class-switch recombination and represents the major immunoglobulin class responsible for long-term humoral immunity. It plays an essential role in neutralizing pathogens, promoting phagocytosis, activating the classical complement pathway, and mediating antibody-dependent cellular cytotoxicity. Because of its abundance and biological importance, Human IgG Antibody IG507R is widely used to identify plasma cells, evaluate antibody production, and characterize immune responses in normal and diseased tissues.

Rabbit monoclonal antibodies are valued for their high affinity, excellent epitope recognition, and reproducible performance across multiple experimental applications. These characteristics make clone IG507R well suited for immunohistochemistry, Western blotting, and related immunodetection techniques requiring robust and consistent staining. Human IgG Antibody IG507R is particularly useful in studies of lymphoid tissues, plasma cell neoplasms, chronic inflammation, autoimmune disease, infectious disease, and therapeutic antibody development, where accurate detection of human immunoglobulin G is critical.

Human IgG Antibody IG507R provides reliable detection of human immunoglobulin G in studies of humoral immunity, plasma cell biology, antibody production, and immune-mediated disease. The rabbit monoclonal format of clone IG507R delivers the specificity and reproducibility required for high-quality immunological research across diverse experimental systems.

Explore our Human IgG Antibody page for additional antibodies supporting sensitive and specific detection of human IgG across a wide range of immunological research applications.

Application Notes

The optimal dilution of the Human IgG Antibody IG507R for each application should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Human Ig Gamma Chain was used as the immunogen for this Human IgG Antibody IG507R.

Storage

Store the Human IgG Antibody IG507R at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

IGHG1 antibody, Immunoglobulin G antibody, Human Immunoglobulin G antibody, Ig Gamma Heavy Chain antibody, Human IgG Heavy Chain antibody, Immunoglobulin Gamma antibody

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