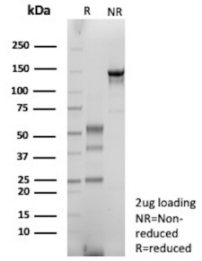
IGHG1 Antibody / Immunoglobulin heavy constant gamma 1 [clone rIGHG1/13035] (V5917)

Catalog No.	Formulation	Size
V5917-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5917-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5917SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant | MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rIGHG1/13035
UniProt	P01857
Localization	Cell membrane, Secreted
Applications	ELISA :
Limitations	This recombinant IGHG1/Immunoglobulin heavy constant gamma 1 antibody is available for research use only.



SDS-PAGE Analysis purified recombinant IGHG1/Immunoglobulin heavy constant gamma 1 antibody (clone rIGHG1/13035). Confirmation of Purity and Integrity of Antibody.

Description

IGHG1 antibody targets Immunoglobulin heavy constant gamma 1, the constant region of the gamma 1 heavy chain that defines immunoglobulin G1 (IgG1). The IGHG1 gene encodes the Fc portion of IgG1 antibodies, which mediates key immune effector functions including Fc receptor binding, complement activation, and antibody-dependent cellular cytotoxicity. Immunoglobulin heavy constant gamma 1 is produced by B cells and plasma cells that have undergone class

switch recombination toward the IgG1 isotype. As a result, an IGHG1 antibody is widely used in immunology and pathology research to study humoral immune responses and antibody-producing cells.

Immunoglobulin heavy constant gamma 1 plays a central role in adaptive immunity and represents one of the most abundant IgG subclasses in human serum. IgG1 antibodies are particularly effective at engaging Fc gamma receptors on immune cells such as macrophages, natural killer cells, and neutrophils, thereby promoting opsonization and immune clearance of pathogens. Detection of Immunoglobulin heavy constant gamma 1 using an IGHG1 antibody supports investigation of antibody-mediated immunity, Fc receptor signaling, and inflammatory responses.

Expression of Immunoglobulin heavy constant gamma 1 is regulated by cytokine-driven class switching, most notably under the influence of interleukin-4 and related signaling pathways. Elevated IGHG1 expression is observed during normal immune responses to infection and vaccination, as well as in chronic inflammatory and autoimmune conditions. An IGHG1 antibody enables visualization and analysis of IgG1-producing plasma cells within lymphoid tissues, inflamed tissues, and disease-associated lesions.

Immunoglobulin heavy constant gamma 1 also has diagnostic and research relevance in hematologic disorders. Clonal expansion of IgG1-producing plasma cells is characteristic of many plasma cell dyscrasias, including multiple myeloma and monoclonal gammopathies. Antibody-based detection of IGHG1 supports studies of abnormal immunoglobulin production, B cell differentiation, and immune dysregulation in both reactive and neoplastic conditions.

As a member of the immunoglobulin heavy chain constant region family, Immunoglobulin heavy constant gamma 1 contains conserved structural domains responsible for Fc-mediated immune functions. Because IGHG1 expression reflects immunoglobulin isotype rather than antigen specificity, detection with an IGHG1 antibody provides a direct measure of IgG1-related immune activity. Clone rIGHG1/1303 is designed to recognize Immunoglobulin heavy constant gamma 1 and supports detection of IGHG1 expression in relevant research applications. NSJ Bioreagents offers this IGHG1 antibody to support studies of humoral immunity, inflammation, and antibody-mediated disease mechanisms.

Application Notes

Optimal dilution of the recombinant IGHG1/Immunoglobulin heavy constant gamma 1 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human IGHG protein was used as the immunogen for the recombinant IGHG1/Immunoglobulin heavy constant gamma 1 antibody.

Storage

Recombinant IGHG1/Immunoglobulin heavy constant gamma 1 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.