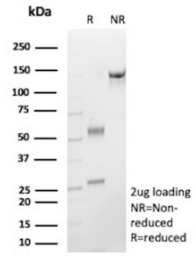
IGHE Antibody / Immunoglobulin heavy constant epsilon [clone rIGHE/13128] (V5916)

Catalog No.	Formulation	Size
V5916-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5916-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5916SAF-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	rIGHE/13128
UniProt	P01854
Localization	Cell membrane, Secreted
Applications	ELISA :
Limitations	This recombinant IGHE/Immunoglobulin heavy constant epsilon antibody is available for research use only.



SDS-PAGE of Analysis purified recombinant IGHE/Immunoglobulin heavy constant epsilon antibody (clone rIGHE/13128). Confirmation of Purity and Integrity of Antibody.

Description

IGHE antibody targets Immunoglobulin heavy constant epsilon, the constant region of the epsilon heavy chain that defines immunoglobulin E (IgE). The IGHE gene encodes the constant domain responsible for the effector functions of IgE antibodies, which are primarily involved in allergic responses and type I hypersensitivity reactions. Immunoglobulin heavy constant epsilon is predominantly expressed by activated B cells and plasma cells that have undergone class

switch recombination toward the IgE isotype. An IGHE antibody is therefore widely used in immunology research to study IgE-producing cells, allergic inflammation, and immune regulation.

Immunoglobulin heavy constant epsilon forms part of the IgE molecule that binds with high affinity to the Fc epsilon receptor I (FcÃŽÂµRI) expressed on mast cells and basophils, and with lower affinity to Fc epsilon receptor II (CD23) on B cells and other immune cells. Cross-linking of IgE bound to FcÃŽÂµRI by antigen triggers degranulation of mast cells and basophils, releasing histamine and other inflammatory mediators. Use of an IGHE antibody supports investigation of IgE biology, receptor interactions, and downstream immune signaling pathways associated with allergy and asthma.

Expression of Immunoglobulin heavy constant epsilon is tightly regulated and typically low in healthy individuals, but can be elevated in allergic disease, parasitic infection, and certain immune dysregulation states. Increased numbers of IgE-producing plasma cells and enhanced IGHE expression are characteristic features of atopic dermatitis, allergic rhinitis, asthma, and food allergy. An IGHE antibody enables detection and localization of IgE-expressing cells within lymphoid tissues and inflamed tissues, providing insight into disease-associated immune responses.

In addition to allergic disease, Immunoglobulin heavy constant epsilon has relevance in hematopathology. IgE-producing plasma cell neoplasms and rare IgE myelomas exhibit IGHE expression, making antibody-based detection useful for research into abnormal immunoglobulin class switching and plasma cell differentiation. IGHE antibody reagents can also support studies of B cell maturation, germinal center reactions, and cytokine-driven class switch recombination.

Immunoglobulin heavy constant epsilon is a member of the immunoglobulin heavy chain constant region family and contains conserved domains that mediate receptor binding and immune effector function. Because IGHE expression reflects IgE isotype commitment rather than antigen specificity, detection with an IGHE antibody provides a direct readout of IgE-related immune activity. Clone rIGHE/13128 is designed to recognize Immunoglobulin heavy constant epsilon and supports detection of IGHE expression in relevant research applications. NSJ Bioreagents offers this IGHE antibody to support studies of allergy, immune regulation, and IgE-mediated disease mechanisms.

Application Notes

Optimal dilution of the recombinant IGHE/Immunoglobulin heavy constant epsilon antibody should be determined by the researcher.

Immunogen

Recombinant human IGHE protein was used as the immunogen for the recombinant IGHE/Immunoglobulin heavy constant epsilon antibody.

Storage

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