

Active Recombinant Human IGHG1 protein, Fc/Avi-tagged,

Cat. No. IGHG1-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Human IGHG1 protein, fused to Fc/Avi tag at the C-terminus, was expressed in HEK293 cells .

Species

Human

Source

HEK293

Description

IGHG1 is the crystallizable fragment in the constant region of the human immunoglobulin heavy chain. Members of the immunoglobulin superfamily (IgSF) consist of two heavy (H) and two light (L) chains, with each component containing one variable (V) and one or more constant (C) domains (1, 2). Produced by B lymphocytes, Ig gamma (IgG) is the predominant isotype found in the body and has the longest half-life of all immunoglobulin isotypes (3). Four IgG subclasses (IgG1-4) were identified based on structural, antigenic and functional differences in the constant region of the heavy chain. The constant tail of the antibody is where proteins involved in immune responses typically bind, most notably the first component of the complement pathway, C1q, and Fc receptors found on immune cells such as B lymphocytes. Affinities for C1q and Fc gamma receptor (Fc gamma R) differ among the IgG subclasses. Fc receptors mediate the recruitment of immune cells to a site of infection (4). Engineered crystallizable fragment (Fc) regions of antibody which assume a unique and unprecedented asymmetric structure within the homodimeric Fc polypeptide, enable completely selective binding to the complement component C1q and activation of complement via the classical pathway without any concomitant engagement of the Fc gamma R (5).

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Predicted N Terminal	Ile
Form	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
Bio-activity	When Biotinylated Recombinant Human IgG1 Fc Avi-tag is immobilized at 2 µg/mL (100 µL/well) , it binds to Human IgG1 with an ED50 of 0.2-2.0 µg/mL.
Molecular Mass	30-42 kDa
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 500 µg/mL in PBS.

GENE INFORMATION

Gene Name	IGHG1 Immunoglobulin heavy constant gamma 1(G1m marker) [Homo sapiens]
Official Symbol	IGHG1
Synonyms	IGHG1; Immunoglobulin heavy constant gamma 1(G1m marker);

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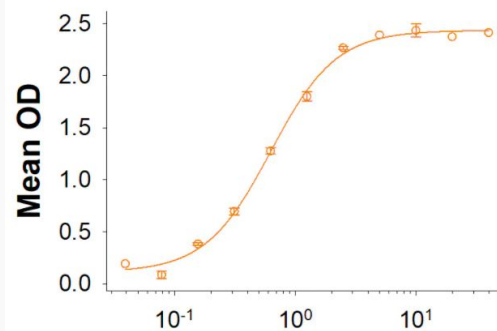
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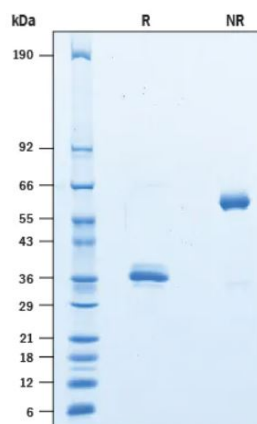
Gene ID 28221

UniProt ID P01857

Binding Activity



SDS-PAGE



2 µg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

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