

Product Specification Sheet

Human IgG1 antibody

□Cat# IGHG21-A Rabbit anti-Human IgG1 antibody

antigen binding sites. (variable) hinges hydrate heavy chains

Immunoglobulin G (IgG)

Immunoglobulin G (IgG) is a type of antibody. It is a protein complex composed of four peptide chains-two identical heavy chains and two identical light chains arranged in a Yshape typical of antibody monomers. IgG has molecular weight of approximately 150 kDa, heavy or H chain approximately 50 kDa and light or L chain 25 kDa. Each IgG has two antigen binding sites Representing approximately 75% of serum antibodies in humans, IgG is the most common type of in found antibody circulation. IgG1 constitutes approximately 66% of total Ig serum concentration

Source of Antigen and Antibodies

Host: Rabbit

Clonality: Polyclonal

Immunogen: Synthetic peptide derived from Human IgG1

Purification: Ammonium sulfate followed by antigen affinity

chromatography

Cross reactivity: The cross-reactivity was tested against IgG2, IgG3, and IgG4 in an indirect ELISA. Human IgG isotypes were coated overnight at a concentration of 1 µg/ml. IGHG21-A was added to each well at a concentration starting from 10 µg/ml and serially diluted 5-fold. After 1 hour, the wells were washed and a Goat anti-Rabbit IgG Fc (Human IgG absorbed) was added and incubated for 30 minutes. The wells for washed and TMB was added and incubated for 15 minutes. The reaction was stopped with Sulfuric acid and the results were read at 450 nm. Results show that 0.64 ng/ml of IGHG21-A reacted against Human IgG1 with a higher or equal titer than 10 μg/ml of antibody against other isotypes. This indicates a cross-reactivity of ~0.0064% or less for IgG2/3/4.

ng/ml IGHG21-A	0	0.64	3.2	16	80	400	2,000	10,000
lgG1	0.04	0.915	2.23	2.89	3.02	3.02	3.03	3.02
IgG2	0.014	0.042	0.031	0.056	0.099	0.265	0.447	0.734
IgG3	0.016	0.056	0.046	0.119	0.198	0.446	0.649	1.02
IgG4	0.028	0.04	0.051	0.057	0.083	0.155	0.334	0.928

Form & Storage of Antibodies

☐ Affinity pure IgG Solution

Concentration: 0.5 mg/ml Volume: 200 µl

Supplied in PBS, pH 7.4

The antibody can be made available conjugated to HRP,

SIZE: 100 µg

Biotin, FITC, or colloidal gold on request

□ Lyophilized powder

Lyophilized from a formulation containing PBS, pH 7.4 +3% Trehalose. Reconstitute in 100 µl distilled water to 1 mg/ml

Storage:

Short-term: 4°C for 3 months

Long-term: at -20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at -20°C.

Recommended Usage

ELISA: Assay dependent concentration. Typically ranges from 0.1-2.0 µg/ml as a capture or detection antibody

Western blot: 0.5-2 µg/ml

IHC/ICC: 1-10 µg/ml

The above concentrations are a suggestion, user's must optimize the concentrations based on their own use. The assay may work in other applications such as Flow Cytometry, these applications have not been tested by ADI but does not exclude their use in such assays.

*This product is for In vitro research use only.

Related materials available from ADI

Catalog# Description

10121 Mouse Monoclonal Anti-Human IgG1 (Fcregion)-HRP 10121-AP Mouse Monoclonal Anti-Human IgG1 (Fcregion)-AP conjugate

10121-BT

Mouse Monoclonal Anti-Human IgG1 (Fc-

region)-Biotin conjugate 10121-FITC

Mouse Monoclonal Anti-Human IgG1 (Fcregion)-FITC conjugate

10121-PE Mouse Monoclonal Anti-Human IgG1 (Fc-

region)-PE (phycoerythrin) conjugate 10121-UL Mouse Monoclonal Anti-Human IgG1 (Fc-region)

affinity purified, unlabeled

20007-G1-1 Human IgG1, Myeloma Plasma

Human IgG1-Biotin Conjugate (negative control) 20007-G1-B 20007-G1-F Human IgG1-FITC Conjugate (negative control)

IGHG21-A

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