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Anti-Human IgG, Pan — Biotin

Hybridoma Monoclonal Antibody

Product Information

Product No.:	I-1205
Clone:	HP6017
Isotype:	Mouse IgG1 κ

Product Description

Specificity:
Clone HP6017 activity is directed against all four forms of human immunoglobulin gamma: IgG1, IgG2, IgG3 and IgG4. HP6017 cross-reacts with IgG from rabbit, goat, sheep, and horse.

Antigen Distribution:
IgG is produced by B cells and is present in mucosal secretions and serum.

Background:
Humans produce five classes of immunoglobulins, IgM, IgD, IgA, IgE, and IgG[1]. IgG is the most abundant class[1] and functions in the humoral immune response[2]. There are four subclasses of IgG, and they are numbered according to decreasing abundance as IgG1 through IgG4. The four subclasses are highly conserved and consist of four polypeptide chains: two identical heavy chains and two identical light chains[1]. While the general structure is very similar between IgG subclasses, differences in their constant regions in the hinge and upper CH2 domain as well as in glycosylation affect their binding to antigens (e.g. pathogenic proteins, polysaccharides, allergens), C1q, and Fc receptors, leading to differences in functionality. As a result, each IgG subclass has a unique response skewed to specific antigens.

IgG1 is the most abundant subclass of IgG and is primarily induced by soluble protein antigens and membrane proteins[1]. IgG2 responds to bacterial capsular polysaccharide antigens. IgG3 is a pro-inflammatory antibody that potently induces effector function. IgG4 is induced by repeated or chronic exposure to antigens that are non-infectious, such as allergens or antigens released during parasitic worm (helminth) infection.

HP6017 was generated by immunizing a BALB/c mouse with purified human immunoglobulins[3]. Spleen cells were fused with Sp2/0-Ag14 myeloma cells.

Known Reactivity Species:
Goat, Horse, Human, Rabbit, Sheep

Format:
Biotin

Immunogen:
Purified human immunoglobulins

Formulation
This Biotinylated antibody is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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Other Applications Reported in Literature:

ELISA,
IHC

Country of Origin
USA

References

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3. Reimer CB, Phillips DJ, Aloisio CH, et al. Hybridoma. 3(3):263-275. 1984
4. Jefferis R, Reimer CB, Skvaril F, et al. Immunol Lett. 10(3-4):223-252. 1985.
5. Hamilton RG, Wilson RW, Spillman T, et al. J Immunoassay. 9(3-4):275-296. 1988.

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