ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

Immunoglobulin G3 (IgG3), Human Plasma (Native)

Cat # 20007-G3-1P **Size:** 100 ug **Form:** □ Liquid □ Lyophilized **Storage**: Store at -20oC

Description

Immunoglobulins belong to a large group of related glyco-proteins that make up approximately 20% of the serum proteins. The serum immunoglobulins react with antigens and confer immunity to individuals. All immunoglobulins share the basic structure of: 2 identical heavy chains joined by disulfide bonds to 2 identical light chains. Both the heavy (H) chains and the light (L) chains are divided into constant and variable regions. The constant regions have similar amino acid composition between all the immunoglobulin classes while the variable regions encompasses about 110 amino acids characterized by a high degree or sequence variability.

IgG is further subdivided into 4 subclasses (IgG1, IgG2, IgG3, IgG4) with ~95% homology. There are 2 subclasses of IgA. IgG and IgA exists in serum as a monomer consisting of a single 4-polypeptide unit. IgM exists in serum as a pen tamer.

It is important to measure the level of immunoglobulins in serum for Antibody deficiency conditions, such as Primary hypogammagobulinaemia, or other immune deficiency diseases such as AIDS. When evaluating patients with recurrent infections, suspected immunodeficiency, allergic disease and many other conditions, it may be necessary to quantify the levels of immunoglobulins.

Form and Storage

Human IgG3 was purified (>95%) from human plasma using proprietary chromatographic and immunological techniques. It showed single arc by IEP against antisera to whole human serum, IgG, with no reactivity with other human serum protein's or antibodies (IgA, IgD, IgE, IgM).

Human IgG3 is prepared from human plasma shown to negative for for HIV, HCV, and HbSAg. Nevertheless, all precautions should be taken and samples be treated as potentially hazardous.

It is supplied in PBS, 0.05% azide (lot specific conc supplied on the vial) or in powder form (amount of protein stated on the vial). The powder product should be **stored at 4°C** for short term and –20oC for long term storage. It is stable for a minimum of 1 year. Do not store diluted solutions. The **lyophilized products** should be dissolved in PBS, pH 7.4 to prepare desired concentration by gentle rocking or vortexing at room temperature. Centrifuge the IgG solution briefly (10,000 g, 15 min) to remove any particulate matter. It should be aliquoted and stored frozen for long term use.

Suggested Uses

This preparation IgG3 is suitable for ELISA, Western or other assays requiring purified IgG1. is approx. 5 ul test or 1 ug/test. Optimal concentration should be tested and adjusted if necessary.

This product is for in vitro research use only.

MSDS: A Material Safety Data Sheet is not required for this product. The product does not contain any hazardous components above 1% or any carcinogens above 0.1% as defined in 29 CFR 1910.1200, the OSHA Hazard Communication Standard. The product contains natural purified proteins in a buffer containing 0.1% or less sodium azide. MSDS can be consulted for these items. Please note that although the product is defined as not hazardous, it is still advisable to follow prudent laboratory practices when handling laboratory reagents.

This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, diagnostic, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals.

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