



## Product Data Sheet

### Human IgA2 (myeloma) Purified

<b>Cat#</b>	<b>20007-7-100</b>	<b>Size:</b>	100 ug	<b>Form:</b>	Liquid	Lyophilized
<b>Cat#</b>	<b>20007-7-500</b>	<b>Size:</b>	500 ug	<b>Form:</b>	Liquid	Lyophilized

IgA is the predominant immunoglobulin class in body secretions, such as saliva, tears, bronchial secretions, nasal mucosal secretions, prostatic fluid, vaginal secretions, and mucous secretions of the small intestines. It may serve both to defend against local infection and to prevent access of foreign antigens to the general immunologic system. It is also found in small amounts in blood. Because it is resistant to degradation by enzymes, secretory IgA can survive in harsh environments such as the digestive and respiratory tracts, to provide protection against microbes that multiply in body secretions. IgA does not activate complement, and opsonises only weakly. Its heavy chains are of the type  $\alpha$ . It exists in two forms, IgA1 (90%) and IgA2 (10%): IgA1 is found in serum and made by bone marrow B cells. In IgA2, the heavy and light chains are not linked with disulfide but with noncovalent bonds. IgA2 is made by B cells located in the mucosae and has been found to secrete into colostrum, maternal milk, tears and saliva.

IgA is found in secretion in a specific form called secretory IgA, a dimer of two IgA monomers linked by two additional chains: One of these is the J chain (from join), which is a polypeptide of molecular mass 1,5 kD, rich with cysteine and structurally completely different from other immunoglobulin chains. This chain is formed in the antibody-secreting cells. The dimeric form of IgA in the outer secretions also has a polypeptide of the same molecular mass (1,5 kD) called the secretory chain and is produced by epithelial cells. It is also possible to find trimeric and even tetrameric IgA.

#### Source of antigen

Human IgA2 was purified (>95% by SDS-PAGE) from myeloma donor. Purified IgA1 produced single arc by immunoelectrophoresis against antiserum to whole human serum and human IgA1.

Myeloma proteins are usually heterogeneous with respect to molecular weight; this preparation may contain both monomeric and multimeric forms of IgA2. The isotype of the light chain ( $\kappa$  or  $\lambda$ ) will vary from batch to batch depending on the starting material. All human derived material is certified to be nonreactive for HBsAg and for antibodies to HCV, HBe, HIV-1 and HIV-2). However, all precautions must be taken to avoid contamination and proper disposal protocol. IgA was prepared by a combination of purification procedures: delipidation, selective precipitation, gel filtration, etc. The resulting preparation was judged to be >95% pure by SDS-PAGE.

#### Form and Storage

Human IgA2 is supplied in PBS, pH 7.4, 0.05% azide (see lot sp concn on the vial) in liquid or in lyophilized form. The product should be **stored at 4°C** for short term and -20°C 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. It should be aliquoted and stored frozen at -20°C for long term use.

#### Suggested Uses

This preparation of normal human IgA is suitable for coating the ELISA plates or as a non-immune control for ELISA, dot blot, Western or IHC. .

*This product is for in vitro research use only.*

#### MSDS:

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.

#### Related items

##### Human IgG, IgM, IgA, IgE ELISA kits

Anti-Human IgG, IgM, IgA, IgE (biotin, HRP, FITC) conjugates (secondary antibodies)

20007-7-100, -500      70508A