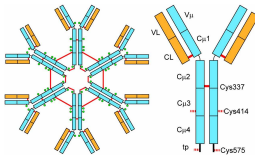


Product Data Sheet

Human IgM, purified (isotype control/Normal Control)

Cat# 20007-2	Size: <input type="checkbox"/> 1 mg	Form: <input type="checkbox"/> Liquid	<input type="checkbox"/> Lyophilized
Cat# 20007-2-5	Size: <input type="checkbox"/> 5 mg	Form: <input type="checkbox"/> Liquid	<input type="checkbox"/> Lyophilized
Cat# 20007-2-10	Size: <input type="checkbox"/> 10 mg	Form: <input type="checkbox"/> Liquid	<input type="checkbox"/> Lyophilized



Immunoglobulin M (IgM) is a basic antibody that is produced by B cells. IgM is by far the physically largest antibody in the human circulatory system. It is the first antibody to appear in response to initial exposure to an antigen. IgM

is produced and secreted from spleen, a major site for B cell activity. IgM forms polymers where multiple immunoglobulins are covalently linked together with disulfide bonds, mostly as a pentamer (970 kda) but also as a hexamer. Because each monomer has two antigen binding sites, a pentameric IgM has 10 binding sites. The J chain is found in pentameric IgM but not in the hexameric form. Due to its polymeric nature, IgM possesses high avidity, and is particularly effective at complement activation. It contributes greatly to opsonization by activating complement and causing C3b to bind to the antigen. IgM normal plasma concentration ~1-.4 mg/ml. Low levels of IgM are associated with Wiskott-Aldrich syndrome.

Source of Antigen

A healthy non-immunized population of humans was used to collect serum. IgM was prepared by a combination of purification procedures: delipidation, selective precipitation, gel filtration, trypsin digestions, and dialysis. The resulting preparation was judged to be >95% pure by IEP against anti-human serum and no reaction against anti-human IgG F(c). Some light chain reaction may occur with anti-human IgG. All human sera and plasma or buffers based upon, have been tested respective to HBsAg, HIV and HCV with recognized methods and were found negative. Nevertheless precautions like the use of latex gloves have to be taken.

Form and Storage

Antibody concentration is determined by A280 (E0.1%=1.18). Human IgM is provided in 50 mM Tris, pH 8.0 and 0.2 M NaCl and 0.05% azide (typically 0.5 mg/ml or lot specific concentration on the vial) or lyophilized in the same buffer. The 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. Sodium azide, an inhibitor of peroxidase, must be avoided if used with antibody-HRP conjugates. 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 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 of normal human IgM is suitable for coating the ELISA plates or as a non-immune control for ELISA, dot blot, Western or IHC. Recommended testing concn. is approx. 10 ug/ml. It is, however, possible that this preparation may be unsuitable for some antigens or cell/tissue extracts and may give slightly higher background. Switching to another preparation from different mouse or vendor may alleviate this problem.

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

Catalog#	ProdDescription
1750	Human IgG ELISA Kit, 96 tests, Quantitative
1760	Human IgM ELISA Kit, 96 tests, Quantitative
1780	Human IgA ELISA Kit, 96 tests, Quantitative
1800	Human IgE ELISA Kit, 96 tests, Quantitative
20007-2	Human IgM, purified (isotype control)
20007-2-10	Human IgM purified (isotype control)
20007-2-5	Human IgM purified (isotype control)
20007-2-FC5M	Human IgM Fc5u fragment, purified
20007-2-M	Human IgM, Myeloma Plasma (isotype control)
20007-2-MB	Human IgM-Biotin conjugate (isotype control)
20007-2-MF	Human IgM-FITC conjugate (isotype control)
20007-2-MP	Human IgM-HRP conjugate (isotype control)
20007-2-MR	Human IgM-Rhodamine conjugate (isotype control)
20007-2-MT	Human IgM-Texas Red conjugate (isotype control)
20007-2-MU	Human IgM, mu Chain, Human Plasma, native (isotype control)
20007-2-Human-IgM	150902