

Human Beta-2 microglobulin/B2M ELISA Kit | B2M elisa kit

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CATALOG #
AAA258443

REACTIVITY
Human

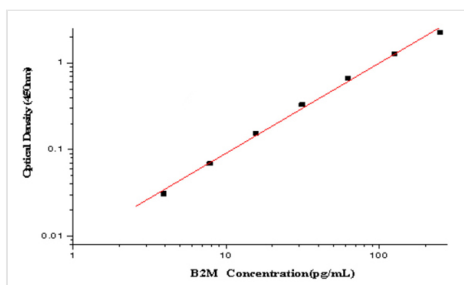
PRODUCT SYNONYMS

Beta-2 microglobulin/B2M; Human Beta-2 microglobulin/B2M ELISA Kit; Beta-2 microglobulin ELISA Kit; Human; beta-2 microglobulin; B2M elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	This assay recognizes both recombinant and natural Human B2M. The factors listed below were prepared at 50 ng/mL in dilution buffer and assayed for cross-reactivity. No cross-reactivity was observed.
Assay Type	Quantitative Sandwich
Samples	Serum, urine and plasma
Sensitivity	< 0.84 pg/mL
Intra-assay Precision	Three samples of known concentration were tested twenty times on one plate to assess intra-assay precision.
Inter-assay Precision	Three samples of known concentration were tested in five separate assays to assess inter-assay precision.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for B2M elisa kit	Background: B2M, also known as beta2-Microglobulin or CDABP92, is a component of MHC class I molecules found expression in all nucleated cells (excludes red blood cells). The major function of MHC class I molecules is to display fragments of proteins from within the cell to T-cells and cells containing foreign proteins will be attacked. B2M(beta2-Microglobulin) is a low molecular weight protein. It was demonstrated that B2M(beta2-Microglobulin) was localized in the membranes of nucleated cells and was found to be associated with HL-A antigens. B2M(beta2-Microglobulin) is present in free form in various body fluids and as a subunit of histocompatibility antigens on cell surfaces lateral to the alpha3 chain. Unlike alpha3, beta2 has no transmembrane region. Directly above beta2 lies the alpha1 chain, which itself is lateral to the alpha2. In the absence of B2M(beta2 microglobulin), very limited amounts of MHC class I (classical and non-classical) molecules can be detected on the surface. In the absence of MHC class I, CD8 T cells, a subset of T cells involved in the development of acquired immunity cannot develop. Low levels of B2M(beta2 microglobulin) can indicate non-progression of HIV. Principle of the Assay: The principle of this ELISA kit is based on the solid phase sandwich enzyme immunoassay technique. A monoclonal antibody specific for Human Beta-2 microglobulin/B2M has been pre-coated onto well plate strips. Standards and samples are added to the wells and Human Beta-2 microglobulin/B2M present in the sample is bound by the immobilized antibody. After incubation the wells are washed and a horseradish peroxidase conjugated anti-Human Beta-2 microglobulin/B2M antibody is added, producing an antibody-antigen-antibody "sandwich complex". Following a wash to remove any unbound antibody a TMB substrate solution is loaded and color develops in proportion to the amount of Human Beta-2 microglobulin/B2M bound. The reaction is stopped by the addition of a stop solution and the intensity of the color can be measured at 450 nm (See schematics below). Intended Uses: For the quantitative determination of Human Beta-2 microglobulin/B2M concentration in serum, urine and plasma.
References	Poulik MD, et al. (1979) Beta 2-Microglobulin: methods and clinical applications. CRC Crit Rev Clin Lab Sci. 10(3): 225-45. Poulik MD, et al. (1975) Beta2-Microglobulins. Contemp Top Mol Immunol. 4: 157-204. Berggard I. (1976) Beta2-Microglobulins: isolation, properties, and distribution. Fed Proc. 35(5): 1167-70.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.