



# Mouse Anti-Human Beta-2 microglobulin monoclonal antibody, clone NN45 (CABT-ZB909)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Specificity</b>	It reacts with Human Beta-2 microglobulin
<b>Target</b>	B2M
<b>Immunogen</b>	Recombinant Human Beta-2 microglobulin/B2M Protein
<b>Isotype</b>	IgG1
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human
<b>Clone</b>	NN45
<b>Purification</b>	Protein A purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	WB, ELISA, ELISA(det), IHC-P, FC, ICC/IF We recommend the following for sandwich ELISA (Capture - Detection): CABT-ZB546 - CABT-ZB909 This antibody will detect Beta-2 microglobulin in antibody pair set. [ABPR-ZB122]
<b>Preparation</b>	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human Beta-2 microglobulin/B2M. The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.
<b>Format</b>	Purified, Liquid

<b>Concentration</b>	Lot specific
<b>Size</b>	50 $\mu$ L, 100 $\mu$ L, 200 $\mu$ L, 1 mL
<b>Buffer</b>	PBS
<b>Preservative</b>	None
<b>Storage</b>	<p>This antibody can be stored at 2°C-8°C for one month without detectable loss of activity.</p> <p>Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.</p>
<b>Ship</b>	Wet ice

## BACKGROUND

<b>Introduction</b>	B2M, also known as $\beta$ 2-Microglobulin or CDABP0092, 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 ( $\beta$ 2-Microglobulin) is a low molecular weight protein. It was demonstrated that B2M ( $\beta$ 2-Microglobulin) was localized in the membranes of nucleated cells and was found to be associated with HL-A antigens. B2M ( $\beta$ 2-Microglobulin) is present in free form in various body fluids and as a subunit of histocompatibility antigens on cell surfaces lateral to the $\alpha$ 3 chain. Unlike $\alpha$ 3, $\beta$ 2 has no transmembrane region. Directly above $\beta$ 2 lies the $\alpha$ 1 chain, which itself is lateral to the $\alpha$ 2. In the absence of B2M ( $\beta$ 2 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 ( $\beta$ 2 microglobulin) can indicate non-progression of HIV.
<b>Keywords</b>	B2M; beta-2-microglobulin; Beta-2-microglobulin; beta chain of MHC class I molecules

## GENE INFORMATION

<b>Synonyms</b>	B2M; beta-2-microglobulin; Beta-2-microglobulin; beta chain of MHC class I molecules; beta-2-microglobin; $\beta$ 2-MG
<b>Entrez Gene ID</b>	<a href="#">567</a>
<b>UniProt ID</b>	<a href="#">Q99879</a>