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Product datasheet for AM33035PU-N

MHC Class I Heavy Chain (Restricted expression) Mouse Monoclonal Antibody [Clone ID: HC10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	HC10
Applications:	ELISA, EM, FC, IF, IHC, IP, WB
Recommended Dilution:	**Electron microscopy.** **ELISA.** **Western Blot.** **Immunoprecipitation.** **Flow Cytometry.** **Immunocytochemistry.** **Immunohistochemistry on Frozen Sections.** **Immunohistochemistry on Paraffin Sections.** ***Recommended Dilutions:*** 1/100-1/200 for Flow Cytometry and for Immunohistochemistry with avidin-biotinylated *Horseradish* Peroxidase complex (ABC) as detection reagent, and 1/100-1/1000 for Immunoblotting applications.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Derived by fusion of SP2/0-Ag14 mouse myeloma cells with spleen cells from BALB/c mice immunized with HLA-B7 and -B40 heavy chains
Specificity:	This Monoclonal antibody *HC10* recognizes HLA class I heavy chains. *HC10* reacts mostly with HLA-B and HLA-C heavy chains and some HLA-A (HLA-A10, HLA-A28, HLA-A29, HLA-A30, HLA-A31, HLA-A32, HLA-A33). *HC10* was raised against free class I heavy chains of HLA antigens to obtain antibodies that would still react with denatured class I antigens, as they occur in Western blotting, conventional light microscopical analysis of Formalin-Fixed, Paraffin-Embedded Sections, and Cryo-Immuno-Electron Microscopy. *HC10* indeed retains strong reactivity with free class I heavy chains in Western blots. *HC10* also produces strong reactivity in Immuno-Electron Microscopy. Its use allows the determination of tissue and subcellular distribution of class I antigens.

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Formulation:	PBS State: Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Background:	The HLA class I gene family is composed of a group of genes whose products encode cell surface glycoproteins of MW 40–45 kDa, associated non-covalently with the beta-2-microglobulin light chain. They include the three polymorphic molecules HLA-A, -B, and -C, which are ubiquitously expressed and which are able to present intracellular peptides to cytotoxic T cells. Three additional class I genes are known, commonly referred to as non-classical or class Ib genes, all highly homologous to the other class I genes and all of which associate with beta-2-microglobulin light chain. In humans, each of the class Ib genes appears to exhibit a distinct pattern of expression in developing and adult tissues. HLA-E transcripts are distributed widely in adult tissues and have also been found in the placenta and fetal liver. In the adult, the presence of HLA-F has been shown in skin, resting T cells, and B cells, whereas its expression during development has been reported in fetal liver and at low levels in placenta and extra-placental tissues. HLA-G was originally thought to be expressed only in certain populations of placental trophoblasts, but low levels have also been found in a variety of human tissues. Recently it was shown that HLA class I expression in breast cancer cells can have a predictive value for chemotherapy response.
Synonyms:	HLA Class 1, MHC Class 1, Major Histocompatibility complex class I