

Mouse Anti-Human HLA-A Monoclonal Antibody

Mouse, Monoclonal (HLA-A)

Cat. No. DMAB2536MH

Lot. No. (See product label)

PRODUCT INFORMATION

Antigen Description: HLA-A belongs to the HLA class I heavy chain paralogues. This class I molecule is a heterodimer consisting of a heavy chain and a light chain (beta-2 microglobulin). The heavy chain is anchored in the membrane. Class I molecules play a central role in the immune system by presenting peptides derived from the endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon 1 encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domains, which both bind the peptide, exon 4 encodes the alpha3 domain, exon 5 encodes the transmembrane region, and exons 6 and 7 encode the cytoplasmic tail. Polymorphisms within exon 2 and exon 3 are responsible for the peptide binding specificity of each class one molecule. Typing for these polymorphisms is routinely done for bone marrow and kidney transplantation. Hundreds of HLA-A alleles have been described.

Isotype: IgG_{2a}

Specificity: Recognizes a monomorphic determinant (alpha chain) of major histocompatibility HLA Class I antigens. This HLA-A, B, C antigen is present on most nucleated cells of humans and old world monkeys.

Clone: X7/33

Host animal: Mouse.

Source: Tissue culture

Format: FITC, Liquid

Purification: Protein G chromatography

Application: Anti-HLA-A, B, C may be used to identify the expression of HLA-A, B, C gene products. Applications include flow cytometry, complement dependent cytotoxicity studies and immunocytochemistry of acetone fixed frozen tissue sections. We recommend using 1µg to stain 1x10⁶ cells in flow cytometric applications. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded. Centrifuge before opening to ensure complete recovery of vial contents.

PACKAGING

Concentration: 100µg/ml (OD280nm)

Buffer: 0.01M PBS pH 7.2, containing 1% BSA

Preservative: 0.09% Sodium azide

Storage: Store at 2-8°C. **DO NOT FREEZE!**

Warning: This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1–1.0 %. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

ANTIGEN GENE INFORMATION

Gene Name: [HLA-A major histocompatibility complex, class I, A \[Homo sapiens\]](#)

Official Symbol: HLA-A

Synonyms: HLAA; FLJ26655; HLA class I histocompatibility antigen, A-1 alpha chain; OTTHUMP00000161059; OTTHUMP00000161060; leucocyte antigen A; MHC leucocyte antigen; leucocyte antigen class I; antigen presenting molecule; leucocyte; antigen class I-A; MHC class I antigen HLA-A heavy chain

GeneID: [3105](#)

mRNA Refseq: [NM_002116](#)

Protein Refseq: [NP_002107](#)

MIM: [142800](#)

UniProt ID: P01891

Chromosome Location: 6p21.3

Function: MHC class I receptor activity; protein binding

REFERENCES

1. Robertson, S.E., et al., (2006), Extracellular Signal-regulated Kinase Regulates Clathrin-independent Endosomal Trafficking", Molecular Biology of the Cell, 17:645-657
2. Barnstable, C., et al., (1978), Cell, 16:9.

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