

APC/Cyanine7 Mouse anti-Human HLA-A,B,C mAb

Catalog No.: A27489

Basic Information

Observed MW

Calculated MW

Category

Primary antibody

Applications

FC

Cross-Reactivity

Human, Cynomolgus, Rhesus

CloneNo number

AMC0711

Conjugate

APC-Cy7. Ex:651nm. Em:779nm.

Background

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 so that they can be recognized by cytotoxic T cells. 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. More than 6000 HLA-A alleles have been described. The HLA system plays an important role in the occurrence and outcome of infectious diseases, including those caused by the malaria parasite, the human immunodeficiency virus (HIV), and the severe acute respiratory syndrome coronavirus (SARS-CoV). The structural spike and the nucleocapsid proteins of the novel coronavirus SARS-CoV-2, which causes coronavirus disease 2019 (COVID-19), are reported to contain multiple Class I epitopes with predicted HLA restrictions. Individual HLA genetic variation may help explain different immune responses to a virus across a population.

Recommended Dilutions

FC 5 µl per 10⁶ cells in 100 µl volume

Immunogen Information

Gene ID

3105

Swiss Prot

P04439/P30443

Immunogen

Recombinant protein (or fragment). This information is considered to be commercially sensitive.

Synonyms

HLAA

Contact

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🌐 | www.abclonal.com.cn

Product Information

Source

Mouse

Isotype

IgG2a, κ

Purification

Affinity purification

Storage

Store at 4°C. Avoid freeze.

Buffer: PBS with 0.09% Sodium azide, 0.2% BSA, pH7.2.

Validation Data

