Data Sheet (Cat.No.TMAB-07159)

Anti-HLA-C Antibody (3Y828)

Product Details

Ig Type:	IgG
Reactivity:	Human
Molecular Weight:	Theoretical: 4 kDa. Actual: 45 kDa.
Clone:	3Y828
Purification:	Protein A purified

Applications

Verified Activity:	1. Paraformaldehyde-fixed, paraffin embedded (human colon carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HLA-C) Monoclonal Antibody, Unconjugated (TMAB-07159) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining. 2. Paraformaldehyde-fixed, paraffin embedded (human liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HLA-C) Monoclonal Antibody, Unconjugated (TMAB-07159) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining. 3. Paraformaldehyde-fixed, paraffin embedded (human skin); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HLA-C) Monoclonal Antibody, Unconjugated (TMAB-07159) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining. 4. Sample: Lane 1: Human HeLa cell lysates Lane 2: Human HepG2 cell lysates Lane 3: Recombinant human HLA-C & Beta-2-MG Heterodimer protein, C-His (HEK293) Primary: Anti-HLA-C (TMAB-07159) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution Predicted band size: 41 kDa Observed band size: 45 kDa 5. Paraformaldehyde-fixed, paraffin embedded (human gastric carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HLA-C) Monoclonal Antibody, Unconjugated (TMAB-07159) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining. 6. Paraformaldehyde-fixed, paraffin embedded (human liver carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HLA-C) Monoclonal Antibody, Unconjugated (TMAB-07159) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

7. Paraformaldehyde-fixed, paraffin embedded (human breast carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HLA-C) Monoclonal Antibody, Unconjugated (TMAB-07159) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.
8. Paraformaldehyde-fixed, paraffin embedded (human tonsil); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HLA-C) Monoclonal Antibody, Unconjugated (TMAB-07159) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.
9. Paraformaldehyde-fixed, paraffin embedded (human lung carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (HLA-C) Monoclonal Antibody, Unconjugated (TMAB-07159) at 1: 200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.
10. Blank control: U266.
Primary Antibody (green line): Mouse Anti-HLA-C antibody (TMAB-07159)
Dilution: 1 µg/Test;
Secondary Antibody (white blue line) : Goat anti-Mouse IgG-AF488
Dilution: 0.5 µg/Test.
Isotype control (orange line): Normal Mouse IgG
Protocol
The cells were incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Application:	WB,IHC-P,IHC-Fr,IF,FCM
Recommended	WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:400-800; IF: 1:100-500; FCM: 1µg/Test

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: human HLA-C protein
Antigen Species:	Human
Gene ID:	3107
Uniprot ID:	P10321

Research Background

HLA-C 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 endoplasmic reticulum lumen. They are expressed in nearly all cells. The heavy chain is approximately 45 kDa and its gene contains 8 exons. Exon one encodes the leader peptide, exons 2 and 3 encode the alpha1 and alpha2 domain, 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. About 6000 HLA-C 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.[provided by RefSeq, Aug 2020]

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