bs-18070R **[Primary Antibody]**

MHC class I Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 3105 **SWISS:** P04439

Target: MHC class I

Immunogen: KLH conjugated synthetic peptide derived from human HLA A2: 101-200/365. < Extracellular >

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

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.[provided by RefSeq, Aug 2020]

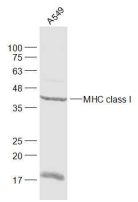
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
ICC/IF (1:100)

Reactivity: Human

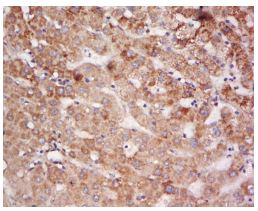
Predicted MW.: 38 kDa

Subcellular Location: Cell membrane

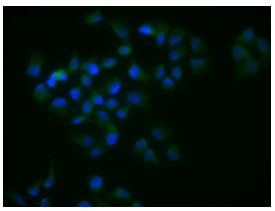
VALIDATION IMAGES



Sample: A549(Human) Cell Lysate at 30 ug Primary: Anti-MHC class I (bs-18070R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 38 kD Observed band size: 38 kD



Tissue/cell: human liver cancer; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-HLA A2 Polyclonal Antibody, Unconjugated(bs-18070R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (MHC class I) polyclonal Antibody, Unconjugated (bs-18070R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

SELECTED CITATIONS

- **[IF=27.7]** Luo Hao. et al. The miR-23a/27a/24 — 2 cluster drives immune evasion and resistance to PD-1/PD-L1 blockade in non-small cell lung cancer. MOL CANCER. 2024 Dec;23(1):1-15 WB ;Human. 39736629
- **[IF=4.4]** Song Pengkang. et al. Vitamin a potentiates sheep myoblasts myogenic differentiation through BHLHE40-modulated ID3 expression. BMC GENOMICS. 2024 Dec;25(1):1-12 WB ;Sheep. 38443816
- **[IF=3.4]** Wang Fenghong. et al. Long-term exposure to silica nanoparticles induces cardiac hypertrophy through the pyroptosis pathway. TOXICOL SCI. 2025 Apr;: IHC,WB ;Rat. 40286312