

Instruction Manual

Catalog Number	PK-AB718-4261
Synonyms	MICA Antibody: MHC class I chain-related protein A, HLA-B, HLA-C
Description	Major histocompatibility complex (MHC) class I proteins are ubiquitously expressed and mediate the recognition of intracellular antigens by cytotoxic T cells. A related family, termed the MHC class I chain-related (MIC) proteins are recognized by NKG2D, a receptor on NK and T cells, and promote anti-tumor activity. MICA, a member of the MIC family, is widely expressed on many tumors, and it is the MICA/NKG2D interaction that is thought to stimulate the anti-tumor reactivity by T lymphocytes. Both MICA and MICB mRNA are widely expressed in normal tissues, with MICA being present in virtually every tissue except the nervous system, suggesting that MIC protein expression may only be one component of the anti-tumor activity of the immune system.
Quantity	100 µg
Source / Host	Rabbit
Immunogen	MICA antibody was raised in rabbits against a 16 amino acid peptide from near the carboxy terminus of human MICA.
Purification Method	Affinity chromatography purified via peptide column.
Clone / IgG Subtype	Polyclonal antibody
Species Reactivity	Human, Mouse
Specificity	
Formulation	Antibody is supplied in PBS containing 0.02% sodium azide.
Reconstitution	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
Storage & Stability	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Applications	E, WB, IHC, IF INote: Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. MICA antibody can be used for detection of MICA by Western blot at 0.5 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.
Images	Available upon request.
References	Rudolph MG, Stanfield RL and Wilson IA. How TCRs bind MHCs, peptides, and coreceptors. Annu. Rev. Immunol. 2006; 24:419-66. Bahram S, Bresnahan M, Geraghty DE, et al. A second lineage of mammalian major histocompatibility complex I genes. Proc. Natl. Acad. Sci. USA 1994; 91:6259-63. Bauer S, Groh V, Wu J, et al. Activation of NK cells and T cells by NKG2D, a receptor for stress-inducible MICA. Science 1999; 285:727-9. Maccalli C, Pende D, Castelli C, et al. NKG2D engagement of colorectal cancer-specific T cells strengthens TCR-mediated antigen stimulation and elicits TCR independent anti-tumor activity. Eur. J. Immunol. 2003; 33:2033-43.
Images	Available upon request.
Related Products	Cat.No. PK-AB718-4261P; MICA Peptide Cat.No. PK-AB718-1203; A549 Cell Lysate

FOR IN VITRO RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC PROCEDURES.