

HLA-E Monoclonal Antibody (MEM-E/02)

Catalog NumberMA1-19309

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Human, Non-human primate
Host/Isotope	Mouse / IgG1	Published species	Human, Not Applicable
Class	Monoclonal	Tested Applications	
Type	Antibody	Immunohistochemistry (Paraffin) (IHC (P))	Dilution *5-10 µg/mL
Clone	MEM-E/02	Western Blot (WB)	Assay-dependent
Immunogen	Recombinant human HLA-E denaturated heavy chain.	Published Applications	
Conjugate	Unconjugated	Flow Cytometry (Flow)	See 1 publications below
Form	Liquid	Immunohistochemistry (Paraffin) (IHC (P))	See 1 publications below
Concentration	1 mg/mL	ELISA (ELISA)	See 1 publications below
Purification	Protein A	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage buffer	PBS, pH 7.4		
Contains	15mM sodium azide		
Storage Conditions	4° C, do not freeze		

Product specific information

This antibody reacts with denaturated heavy chain of human HLA-E. Immunohistochemistry (Paraffin): Heat antigen retrieval (sodium citrate), incubation with mAb: 1 hour / RT, detection DAB.

Background/Target Information

HLA-E 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. HLA-E binds a restricted subset of peptides derived from the leader peptides of other class I molecules. 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 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. HLA and MHC antibodies play a significant role in Immunopeptidomics, facilitating the identification and characterization of neoantigens through high-performance liquid chromatography coupled to tandem Mass Spectrometry.

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PubMed References For HLA-E Monoclonal Antibody (MEM-E/02)

1 Flow Cytometry References

Species / Dilution	Summary
Human / Not Cited	MA1-19309 was used in flow cytometry and immunohistochemistry to study the potential role of a shift in HLA-E from intact heterodimer to beta-2-microglobulin-free monomer in the progression of gastric cancer
	International journal of cancer (Apr 2014; 134: 1558)
	<b>"Gastric cancer progression may involve a shift in HLA-E profile from an intact heterodimer to 2-microglobulin-free monomer."</b> Author(s):Sasaki T,Ravindranath MH,Terasaki PI,Freitas MC,Kawakita S,Jucaud V PubMed Article URL: <a href="http://dx.doi.org/10.1002/ijc.28484">http://dx.doi.org/10.1002/ijc.28484</a>

1 Immunohistochemistry (Paraffin) References

Species / Dilution	Summary
Not Applicable / 1:100	MA1-19309 was used in immunohistochemistry - paraffin section to optimize rhesus monkey decellularized kidney scaffolds
	PloS one (Jan 2014; 8: )
	<b>"Tissue specificity of decellularized rhesus monkey kidney and lung scaffolds."</b> Author(s):Nakayama KH, Lee CC, Batchelder CA, Tarantal AF PubMed Article URL: <a href="http://dx.doi.org/10.1371/journal.pone.0064134">http://dx.doi.org/10.1371/journal.pone.0064134</a>

1 ELISA References

Species / Dilution	Summary
Human / 1:600	MA1-19309 was used in ELISA to study the cross-reaction of some of the natural HHLA-E antibodies with HLA-Ia alleles
	Molecular immunology (Feb 2010; 47: 1121)
	<b>"HLA-E monoclonal antibodies recognize shared peptide sequences on classical HLA class Ia: relevance to human natural HLA antibodies."</b> Author(s):Ravindranath MH,Taniguchi M,Chen CW,Ozawa M,Kaneku H,El-Awar N,Cai J,Terasaki PI PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.molimm.2009.10.024">http://dx.doi.org/10.1016/j.molimm.2009.10.024</a>

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