MHC

Major Histocompatibility Complex

mAbs for immunopeptidomics

Absea® MHC Antibody Project

Our MHC Antibody Project aims to develop specific antibodies for detecting and studying MHC molecules and the peptides they present. These antibodies can be used in basic research, disease diagnostics, and therapeutic development.

Application

- Studies of antigen presentation
- Research on cancer and infectious diseases
- Biomarker discovery

Significance

Data Foundation

Immunopeptidomics provides data on the peptides presented by MHC molecules. This data forms the basis for developing MHC-specific antibodies, helping identify which peptides are worth further investigation.

Technical Complementarity

Mass spectrometry is used to identify and analyze antigenic peptides, while MHC antibodies can be used to validate the biological functions of these peptides. The combination of both enhances the accuracy and efficiency of research.

Clinical Applications

In vaccine development and immunotherapy, immunopeptidomics reveals key antigenic peptides that can serve as targets. MHC antibodies are then developed against these targets for disease diagnosis and treatment.

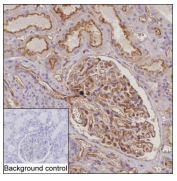
Interdisciplinary Collaboration

The integration of mass spectrometry, immunopeptidomics, and Absea® MHC antibodies promotes interdisciplinary research in biotechnology and medicine, driving the development of novel therapies and diagnostic tools.

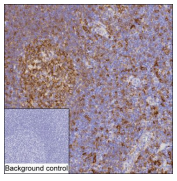
Customer Feedback

- Strong, membranous staining of lymphocytes predominantly inside of germinal centres, exactly as expected.
- Absea´s antibodies against MHC I perform equally well as previously evaluated clones from other vendors.
- Absea´s antibodies against MHC II outperform previously evaluated MHC II antibodies from other vendors.

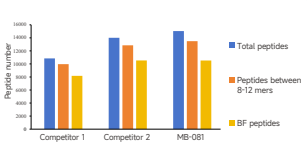
KC-1014
B2M Kidney tissue



KC-1890
HLA-DRA Tonsil tissue

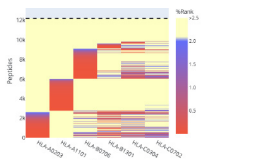


Pan-HLA detection by anti-B2M magnetic beads MB-081



Result:

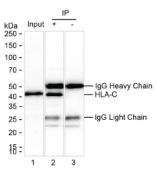
Competitor 1 (HUA): ready to use but with less efficiency
Competitor 2 (SLQ): antibody conjugates with beads by user
MB-081: ready and easy to use, with equivalent efficiency of the top sellers



Binding Heatmap

Input sample: PBMCs from AML patients

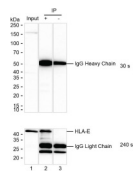
KC-31503 HLA-C (IP)



Sample:

1、Jurkat lysate
2、HLA-C immunoprecipitated by K24074_11G8
3、IgG isotype control

KC-31053 HLA-E (IP)



Sample:

1、Jurkat lysate
2、HLA-E immunoprecipitated from Jurkat lysate by K56061_19D9
3、IgG isotype control

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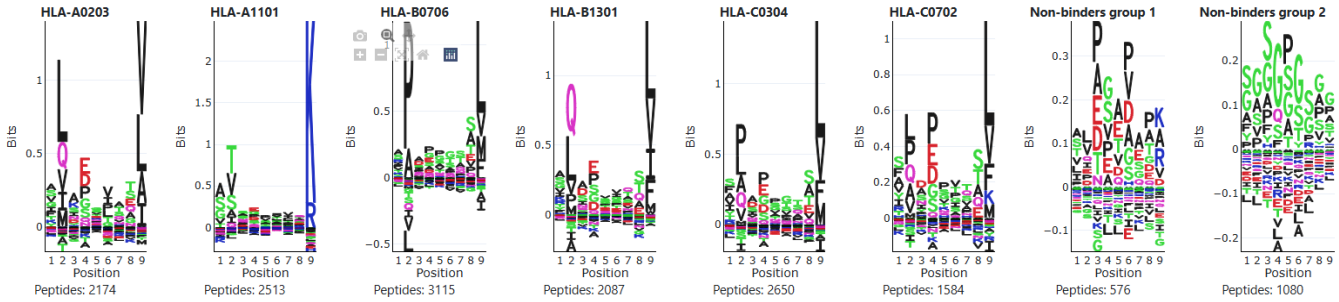
Germany | USA | China

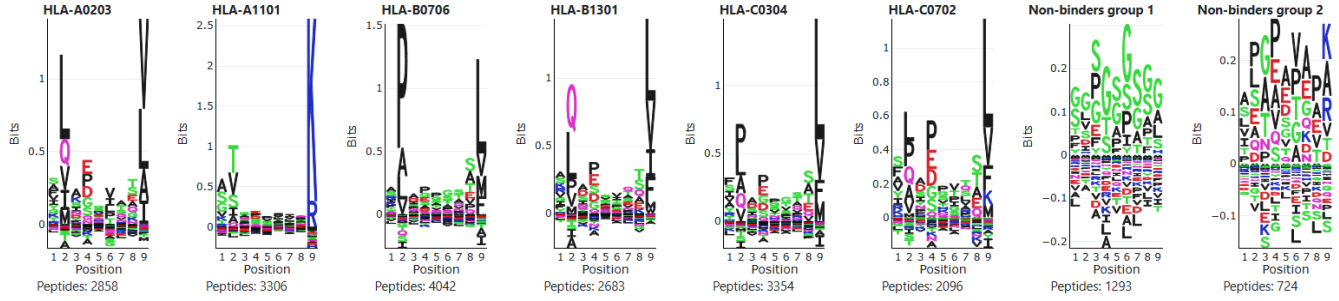
Flagship Products - Conjugates

Catalog No.	Products	IP & Immunopeptidomics
MB-081	Anti-B2M Magnetic Beads	√
MB-079	Anti-B2M Magnetic Beads	√
MB-080	Anti-B2M Magnetic Beads	√

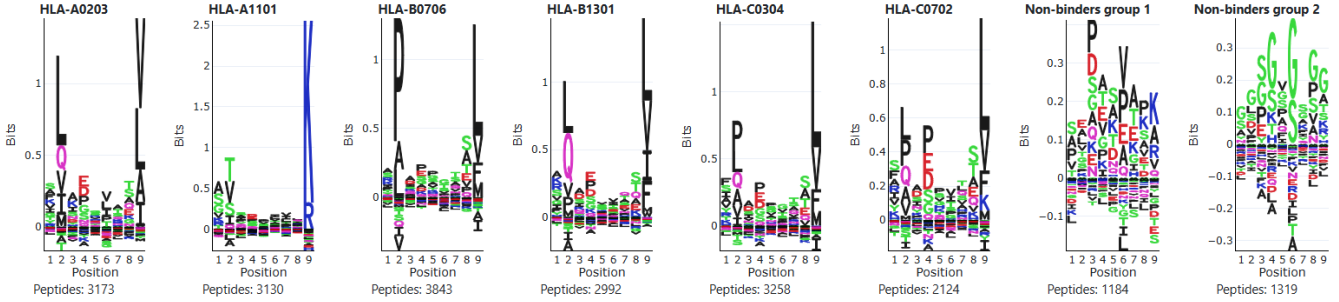
Competitor 1



Competitor 2



MB-081



Our B2M magnetic beads capture pan-HLA peptide motifs consistent with those from leading competitors, with a ready-to-use antibody-conjugated format.

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Product list - Monoclonal Antibodies

Catalog No.	Products	Clone No.	WB	IHC	IP	ELISA	ICC	IF	FC
KC-31049	MHC Class I Antibody	K29099_13D6	√	√					
KC-30995	MHC Class I Antibody	K29099_20D1	√	√					
KC-31065	MHC Class I Antibody	K29099_20F7	√	√					
RC-5981	Recombinant MHC Class I Antibody	K01_2Q11	√	√					
KC-31294	MHC Class I Antibody	K24071_18A10	√	√					
KC-31980	MHC Class I Antibody	K29102_6D10		√					
RN-14621	Recombinant MHC Class I Antibody	K29102_7B1		√					
KC-31384	MHC Class I Antibody	K24071_17C11	√						
KC-31973	MHC Class I Antibody	K29102_11D4		√					
KC-31003	MHC Class I Antibody	K29099_19D4		√					
KC-31958	MHC Class I Antibody	K29102_11B5	√						
KC-31774	MHC Class I Antibody	K29102_9H5		√					
KC-31925	MHC Class I Antibody	K29102_6C9		√					
KC-31103	MHC Class I Antibody	K24071_5E7		√					
KC-30757	MHC Class I Antibody	K24071_20G3		√					
KC-31422	MHC Class I Antibody	K24071_5A7	√						
KC-30962	MHC Class I Antibody	K56061_18E7		√					
RC-15368	Recombinant HLA A Antibody	K01_3R78	√	√					
RC-4566	Recombinant HLA-A Antibody	K01_1S27	√	√			√		
KC-30947	HLA-A Antibody	K29099_13A5	√						
KC-30888	HLA-A Antibody	K29099_18A5		√					
KC-30991	HLA-A Antibody	K29099_7C4		√					
KC-30946	HLA-A Antibody	K29099_17E5		√					
KC-30993	HLA-A Antibody	K29099_12E8	√						
KC-30630	HLA-B Antibody	K24071_4D1		√					
KC-30705	HLA-B Antibody	K24071_10A7		√					
RC-16154	Recombinant HLA B Antibody	K01_4K72	√						
KC-31503	HLA-C Antibody	K24074_11G8	√	√	√				
KC-32564	HLA-C Antibody	K24074_2B11		√	√				
RC-4607	Recombinant HLA-C Antibody	K01_1S28	√						
RC-16494	Recombinant HLA DMB Antibody	K01_4P17	√						
RC-15177	Recombinant HLA DQA1 Antibody	K01_3P85	√						
RC-15443	Recombinant HLA DRA Antibody	K01_3S54	√	√				√	
KC-1607	HLA-DRA Antibody	KAA312_15E9	√	√					
KC-1890	HLA-DRA Antibody	KAA312_14F5		√					
KC-1891	HLA-DRA Antibody	KAA312_15F12		√					
RC-15721	Recombinant HLA DRB1 Antibody	K01_3W35	√						

Catalog No.	Products	Clone No.	WB	IHC	IP	ELISA	ICC	IF	FC
RC-16458	Recombinant HLA DRB4 Antibody	K01_4N80	√						
KC-31053	HLA-E Antibody	K56061_19D9	√		√				
KC-31810	HLA-E Antibody	K56061_14A8			√				
KC-30918	HLA-E Antibody	K56061_14E12			√				
RN-13719	Recombinant HLA-E Antibody	K56061_14A8	√						
KC-30957	HLA-E Antibody	K56061_3A5	√						
KC-30910	HLA-E Antibody	K56061_2D5	√						
KC-32187	HLA-F Antibody	K1H035_1A2	√		√				
RC-16255	Recombinant HLA-F Antibody	K01_4L74	√						
RC-15532	Recombinant HLA-G Antibody	K01_3T44	√						
KC-3917	B2M Antibody	K16072_10H6	√	√					√
KC-265	B2M Antibody	K16072_14D4	√	√	√				
RC-8580	Recombinant B2M Antibody	K03_1K14	√	√	√				
RC-4309	Recombinant B2M Antibody	K01_1N51	√	√					
KC-173	B2M Antibody	KT134	√		√	√			
KC-1014	B2M Antibody	K16072_12A12		√					
KC-1542	B2M Antibody	K16072_7D2		√					
OC-108	B2M Antibody		√						
OC-170	B2M Antibody			√					
RC-4421	Recombinant B2M Antibody	K01_1N50	√						
KC-2673	B2M Antibody	KT135				√			
KH-2673	B2M Antibody (HRP)	KT135				√			
KC-6028	B2M Antibody	K01_2Q58				√			

Specificity and Cross-Reactivity of HLA Class I Molecule Antibodies (ELISA)