

# exbio

A Brighter Future in Flow

## HLA-G Antibodies

### EXBIO history

- **1990** EXBIO Ltd. is founded as a Spin-off company from the Institute of Molecular Genetics, Prague. EXBIO signs exclusive rights to commercialize the collection of unique monoclonal antibodies.
- **1992** EXBIO begins producing mouse ascitic fluid and signs the first OEM manufacture contracts to supply bulk quantities to the antibody manufacturers worldwide.
- **1998** Change of the organizational structure of EXBIO Ltd. results in the registration of the new joint-stock company EXBIO Praha, a.s.
- **1999** EXBIO launches first website and starts selling the catalog products for research under EXBIO brand to end-users. Products offered under OEM contracts are listed in catalogs of world-wide vendors and manufacturers.
- **2004** EXBIO establishes the large-scale bioprocess technologies to respond the customer's demands for contract manufacture of purified monoclonal antibody batches in the gram quantities.
- **2005** Alexa Fluor® and Pacific Blue™ primary antibody conjugates are introduced in to the catalog product offerings. EXBIO initiates hybridoma in-licensing programme with world-wide universities and research institutions to expand product portfolio for the multicolor flow cytometry.
- **2009** EXBIO expands the scope of quality management system and receives certification for ISO 9001:2008 and ISO 13485:2003.
- **2010** EXBIO moves (again) into a brand-new facility (2 200 sq. m.) in order to effectively respond to the customer's needs for large volumes of product and contract manufacture operations.
- **2013** Fluorescent Tandem dye technology development is accomplished. First tandem dye (PE-Cy™7) primary antibody conjugates are introduced in to the catalog product offerings.
- **2019** EXBIO launches the new logo, graphical design and website to enter into new 20-years-period of serving its customers and commitment to their needs.
- **2020** EXBIO acquires Apronex, a small biotech company with expertise in recombinant protein technologies, in order to meet growing customers demands specifically on allergy-screening assays.

### About us

Helping our customers to clearly see every cell in the flow.

**EXBIO is a leading manufacturer of monoclonal antibodies and reagents for research and clinical applications with focus on multi-color flow cytometry analysis of human cellular markers.**

Our comprehensive portfolio of more than 4 000 off-the-shelf products covers a diverse set of areas including Hematology, Immunology, Cancer, Stem cells, and Cell Biology. With the experienced cytometry experts and biotech engineers, EXBIO offers to our customers long-term validated antibody markers in the broad selection of fluorochrome conjugates.

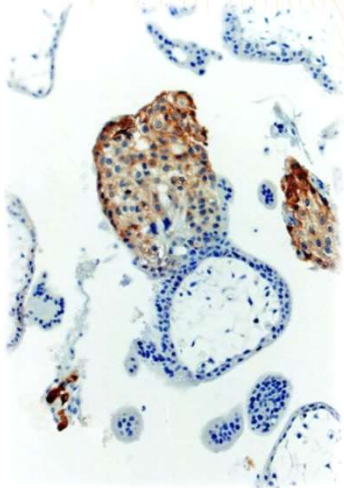
Our commitment to the customer's needs, supported by our integrated quality management system compliant with ISO 13485:2016 and ISO 9001:2015 allow us to accomplish our mission.

EXBIO strives to exceed the most demanding customer expectations in the field of analytical cytometry by providing a comprehensive portfolio of high quality products and services at affordable prices.

### Vision: A Brighter Future in Flow



EXBIO II Research and Technology Centre (2 200 m<sup>2</sup>)



Immunohistochemistry analysis (DAB visualization) of paraffin-embedded section of human first-trimester placenta using the antibody MEM-G/1

## HLA-G Antibodies

Understanding the role of HLA-G molecules under normal and pathological situations attracts many researchers and highly specific monoclonal antibodies are needed. EXBIO offers a panel of unique antibodies that have been thoroughly validated by organizers of HLA-G Workshops and are recommended as reference HLA-G antibodies.

On this occasion we want to promote our complex panel of anti-HLA-G antibodies:

Antibody clone	Isotype	Flow cytometry	Immunohistochemistry		Western blotting	ELISA	Blocking	Specificity
			Frozen sections	Paraffin sections				
MEM-G/1	IgG1	poor	very good	very good	excellent	see footnote <sup>1</sup>	negative	all HLA-G isoforms (denatured)
MEM-G/9	IgG1	excellent	excellent	negative	negative	excellent	negative	HLA-G1 and HLA-G5 (conformational)
MEM-G/11	IgG1	excellent	excellent	not tested	negative	good	negative	HLA-G1 (conformational)
5A6G7	IgG1	poor	excellent	excellent	very good	excellent	negative	HLA-G5 and HLA-G6 (anti-peptide)
2A12	IgG1	excellent (intracellular)	very good	excellent	excellent	good	negative	HLA-G5 and HLA-G6 (anti-peptide)
MEM-G/2	IgG1	poor	very good	excellent	very good	not tested	negative	all HLA-G isoforms (denatured)
87G	IgG2a	excellent	excellent	negative	negative	very good	excellent	HLA-G1 and HLA-G5 (conformational)
01G	IgG1	very good	very good	negative	negative	good	negative	HLA-G1 (conformational)
G233	IgG2a	good	not tested	not tested	not tested	good	not tested	several HLA-G isoforms
4H84	IgG1	not tested	not tested	good	good	good	not tested	all HLA-G isoforms
MEM-G/4	IgG1	poor	not tested	not tested	excellent	not tested	negative	HLA-G1, HLA-G2, HLA-G5 (denatured)

<sup>1</sup> Antibody MEM-G/1 is excellent detection antibody in ELISA system detecting free HLA-G heavy chains.

## EXBIO portfolio

## sHLA-G ELISA Kit

### • Monoclonal Antibodies

- wide portfolio against different targets mainly CD markers
- many fluorochrome formats
- about 900 antigens
- nearly 1 000 clones

### • Kombitests

- wide offer of premixed cocktails of monoclonal antibodies:
  - 2 color reagents
  - 3 color reagents
  - 4 color reagents
  - 6 color reagents

### • Flow Cytometry Kits

- for Allergy Analysis
  - BasoFlowEx® Kit + Allergens
- for T-lymphocytes Proliferation Analysis
  - T-cell BlastoFlowEx® Kit + Mitogens
- for Phagocytosis Analysis
  - FagoFlowEx® Kit
  - IngoFlowEx® Kit
- for NK cells Activation Analysis
  - NKFlowEx® Kit
- for Human Reproduction Analysis
  - SpermFlowEx® Kit
- for T-regulation cells Analysis
  - TregFlowEx® Kit
- for Cell Cycle Analysis
  - ApoFlowEx® Kit
  - CellCycleFlowEx® Kit
- for Stem cells Analysis
  - CD34QuantiFlowEx® Kit

### • Lysing Solutions

- EXCELLYSE® Easy
- EXCELLYSE® Live
- EXCELLYSE® I
- EXCELLYSE® XPerm

The kit is suitable for the determination of soluble forms of Human Leukocyte Antigen-G (sHLA-G) in amniotic fluid, cell culture supernatant, plasma and serum.

In this sHLA-G ELISA, standards and samples are incubated in microtitration wells coated with mouse monoclonal antibody **MEM-G/9**, which recognizes the most abundant soluble isoforms, shedded HLA-G1 and intron4-containing secreted HLA-G5.

Immobilized antibody/sHLA-G complex is detected by mouse monoclonal anti-human beta2-microglobulin antibody conjugated with horseradish peroxidase (HRP).

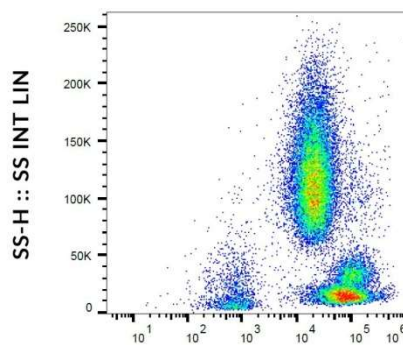
Product	Cat. No.	Quantity
Human sHLA-G ELISA	RD194070100R	96 tests

## HLA-ABCE Antibodies

Besides 11 anti-HLA-G monoclonal antibody clones in various formats, EXBIO offers unique antibody detecting **anti-HLA-ABCE molecules**.

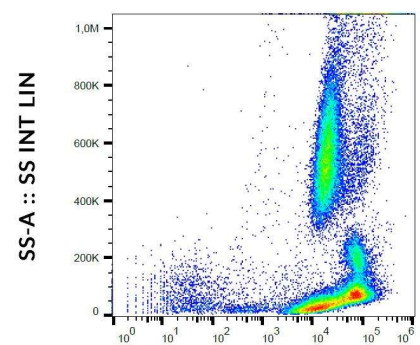
The **clone TP25.99SF** recognizes HLA-ABC and HLA-E, but not HLA-G. It can be used for discrimination between HLA-G and other HLA-class I antigens.

Format	Cat. No.	Application
Purified	11-813-C100	FC, WB, IHC(F)
PE	1P-813-C100	FC
Alexa Fluor® 488	A4-813-C100	FC



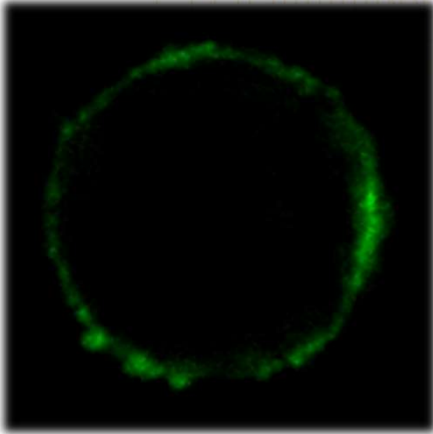
HLA-ABCE Purified / GAM APC

Flow cytometry analysis of human peripheral blood cells stained with anti-HLA-ABCE (clone TP25.99SF, purified, GAM-APC)

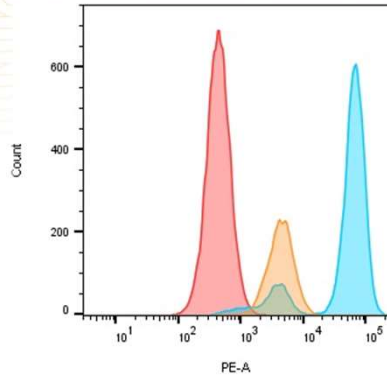


HLA-ABCE Alexa Fluor® 488

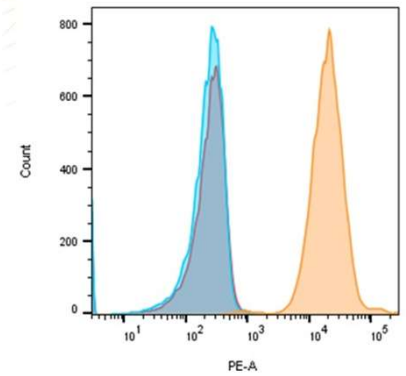
Flow cytometry analysis of human peripheral blood stained with anti-HLA-ABCE (clone TP25.99SF, Alexa Fluor® 488)



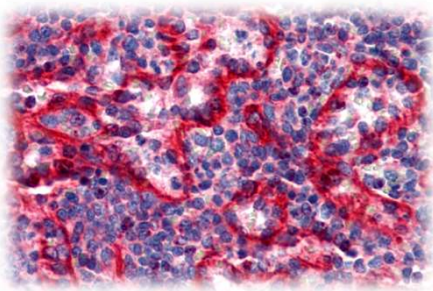
Immunofluorescence staining of HLA-G1 transfectants (LCL-HLA-G1) using anti-human HLA-G (clone MEM-G/9) Alexa Fluor® 488 Fab-fragment



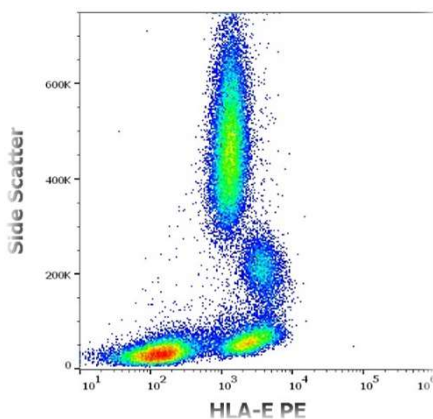
Flow cytometry analysis of human peripheral blood leukocytes stained with anti-HLA-ABCE (clone TP25.99SF, PE, red) and isotype control (blue).



Flow cytometry analysis of LCL-HLA-G transfectants stained with anti-HLA-G (clone MEM-G/9, red), anti-HLA-ABCE (clone TP25.99SF, blue) and isotype control (orange).



Immunohistochemistry staining of human spleen (paraffin sections) with anti-HLA-E (clone MEM-E/07)



Flow cytometry surface staining pattern of human peripheral blood stained using anti-human HLA-E (3D12) PE antibody (concentration in sample 2 µg/ml).

## Other related products

Antigen	Antibody clone	Isotype	Application
HLA-ABCE	TP25.99SF	IgG1	WB, FC
HLA-A2	BB7.2	IgG2b	FC, IP
HLA-B7	BB7.1	IgG1	FC
HLA-Class I	MEM-147	IgG1	FC, IP, WB
HLA Class I	MEM-81	IgG1	FC
HLA Class I	MEM-123	IgG3	FC, IP, ELISA
HLA Class I	W6/32	IgG2a	FC, IP, WB, IHC(F), ICC, ELISA, MC, FUNC
HLA-DQ1+DQ3	HL-37	IgG3	FC, IP, WB
HLA-DR	HL-39	IgG3	FC, IP
HLA-DR	MEM-12	IgG1	FC, IP, WB
HLA-DR	L243	IgG2a	FC, IP, WB, IHC(P), IHC(F), ICC, FUNC
HLA-DR+DP	HL-38	IgG2a	FC, IP, WB, IHC(P)
HLA-DR+DP	HL-40	IgG2a	FC, IP, IHC(P)
HLA-DR+DP	MEM-136	IgG1	FC, IP, WB, IHC(P)
HLA-DR1 (empty)	MEM-267	IgG2b	WB, FC, ELISA
HLA-E	3D12	IgG1	FC, IP, ELISA
HLA-E	MEM-E/02	IgG1	WB, IHC(P)
HLA-E	MEM-E/06	IgG1	FC, IP, IHC(P)
HLA-E	MEM-E/07	IgG1	FC, IP, IHC(P)
HLA-E	MEM-E/08	IgG1	FC, IP
HLA-F	3D11	IgG1	FC, WB

EXBIO Praha, a.s.

Nad Safinou II 341 / 252 50 Vestec / Czech Republic  
[info@exbio.cz](mailto:info@exbio.cz) / [orders@exbio.cz](mailto:orders@exbio.cz) / [technical@exbio.cz](mailto:technical@exbio.cz)

[www.exbio.cz](http://www.exbio.cz)

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