

anti-Human HLA-E Antibody | anti-HLA-E antibody

Anti-HLA-E APC

CATALOG # AAA129217	REACTIVITY Human	APPLICATIONS Flow Cytometry, Functional Assay
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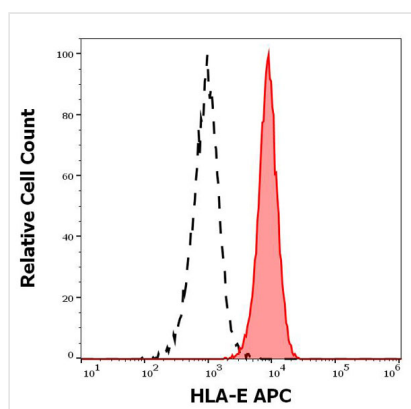
PRODUCT SYNONYMS

HLA-E; Anti-HLA-E APC; major histocompatibility complex; class I; E; HLA class I histocompatibility antigen; alpha chain E; MHC class I antigen E; anti-HLA-E antibody

PRODUCT SPECIFICATIONS

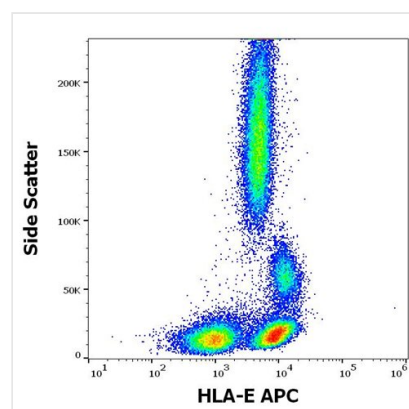
Reactivity	Human
Isotype	Mouse IgG1
Clone Number	3D12
Specificity	The mouse monoclonal antibody 3D12 (also known as 3D12HLA-E) recognizes native extracellular part of HLA-E, an ubiquitously expressed non-classical MHC class I molecule, as well as free HLA-E.
Form/Format	APC Purified antibody is conjugated with activated allophycocyanin (APC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography. Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 m
Concentration	0.1mg/ml (varies by lot)
Applicable Applications for anti-HLA-E antibody	FCM/FACS (Flow Cytometry)
Immunogen	recombinant human HLA-E
Preparation and Storage	Store at 2-8 degree C. Protect from prolonged exposure to light. Do not freeze.

IMAGES



FCM/FACS (Flow Cytometry)

Separation of human lymphocytes (red-filled) from CD45 negative blood debris (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-HLA-E (3D12) APC antibody (10 ?l reagent / 100 ?l of peripheral whole blood).



FCM/FACS (Flow Cytometry)

Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-HLA-E (3D12) APC antibody (10 ?l reagent / 100 ?l of peripheral whole blood).

ADDITIONAL INFORMATION

Related Product Information for anti-HLA-E antibody	HLA-E (human leukocyte antigen E) is a non-classical MHC I antigen, which is important for dialogue with NK cells and their regulation through interaction with CD94/NKG2 receptor. Like other MHC I molecules, transmembrane HLA-E molecule (45 kDa) associates with beta2 microglobulin. Unlike HLA-G, expression of HLA-E molecules is not so restricted, but it has been detected at least at mRNA level in virtually all cells and tissues examined. In peripheral blood, HLA-E protein is expressed at least in all mononuclear cells, but in different quantity (B cells and monocytes more than T cells and NK cells).
References	*Lo Monaco E, Tremante E, Cerboni C, Melucci E, Sibilio L, Zingoni A, Nicotra MR, Natali PG, Giacomini P: Human leukocyte antigen E contributes to protect tumor cells from lysis by natural killer cells. Neoplasia. 2011 Sep;13(9):822-30., URL: <a 25982269"="" href="http://www.ncbi.nlm.nih.gov/pubmed/?term=tremante+e+cerboni+c,*Tremante E, Lo Monaco E, Ingegnere T, Sampaoli C, Fraioli R, Giacomini P: Monoclonal antibodies to HLA-E bind epitopes carried by unfolded ?2 m-free heavy chains. Eur J Immunol. 2015 Aug;45(8):2356-64., URL: https://www.ncbi.nlm.nih.gov/pubmed/25982269,*Ravindranath MH, Pham T, El-Awar N, Kaneku H, Terasaki PI: Anti-HLA-E mAb 3D12 mimics MEM-E/02 in binding to HLA-B and HLA-C alleles: Web-tools validate the immunogenic epitopes of HLA-E recognized by the antibodies. Mol Immunol. 2011 Jan;48(4):423-30., URL: https://www.ncbi.nlm.nih.gov/pubmed/21145594,*Sensi M, Pietra G, Molla A, Nicolini G, Vegetti C, Bersani I, Millo E, Weiss E, Moretta L, Mingari MC, Anichini A: Peptides with dual binding specificity for HLA-A2 and HLA-E are encoded by alternatively spliced isoforms of the antioxidant enzyme peroxiredoxin 5. Int Immunol. 2009 Mar;21(3):257-68., URL: https://pubmed.ncbi.nlm.nih.gov/19181932/,*McMurtrey C, Harrieff MJ, Swarbrick GM, Duncan A, Cansler M, Null M, Bardet W, Jackson KW, Lewinsohn DA, Hildebrand W, Lewinsohn DM: T cell recognition of Mycobacterium tuberculosis peptides presented by HLA-E derived from infected human cells. PLoS One. 2017 Nov 27;12(11):e0188288., URL: https://www.ncbi.nlm.nih.gov/pubmed/29176828,*Lee N, Llano M, Carretero M, Ishitani A, Navarro F, López-Botet M, Geraghty DE: HLA-E is a major ligand for the natural killer inhibitory receptor CD94/NKG2A. Proc Natl Acad Sci U S A. 1998 Apr 28;95(9):5199-204., URL: https://www.ncbi.nlm.nih.gov/pubmed/?term=lee+n+llano+m+carretero+m,

NCBI AND UNIPROT INFORMATION

NCBI GI #	62912479
NCBI GeneID	3133
NCBI Accession #	NP_005507.3
NCBI GenBank Nucleotide #	NM_005516.5
UniProt Accession #	P13747 ; Q30169 ; Q9BT83 ; Q9GIY7 ; Q9GIY8
Molecular Weight	40,157 Da
NCBI Official Full Name	HLA class I histocompatibility antigen, alpha chain E
NCBI Official Synonym Full Names	major histocompatibility complex, class I, E
NCBI Official Symbol	HLA-E
NCBI Official Synonym Symbols	MHC; QA1; EA1.2; EA2.1; HLA-6.2
NCBI Protein Information	HLA class I histocompatibility antigen, alpha chain E; HLA class I histocompatibility antigen, E alpha chain; MHC HLA-E alpha-1; MHC HLA-E alpha-2.1; MHC class I antigen E; lymphocyte antigen
UniProt Protein Name	HLA class I histocompatibility antigen, alpha chain E
UniProt Gene Name	HLA-E
UniProt Synonym Gene Names	HLA-6.2; HLAE
UniProt Entry Name	HLAE_HUMAN

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