

## HLA-E Monoclonal antibody

Catalog Number: 66530-1-Ig 1 Publications

## Basic Information

<b>Catalog Number:</b> 66530-1-Ig	<b>GenBank Accession Number:</b> BC002578	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 2100 µg/ml	<b>GeneID (NCBI):</b> 3133	<b>CloneNo.:</b> 1A4G3
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P13747	<b>Recommended Dilutions:</b> WB 1:2500-1:10000 IHC 1:200-1:800 IF 1:50-1:500
<b>Isotype:</b> IgG2a	<b>Full Name:</b> major histocompatibility complex, class I, E	
<b>Immunogen Catalog Number:</b> AG6724	<b>Calculated MW:</b> 40 kDa	
	<b>Observed MW:</b> 40 kDa	

## Applications

<b>Tested Applications:</b> FC, IF-P, IHC, WB, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> WB	<b>WB :</b> THP-1 cells, Jurkat cells, HUVEC cells, human placenta tissue, Ramos cells, Daudi cells, Raji cells
<b>Species Specificity:</b> Human	<b>IHC :</b> human tonsillitis tissue, human placenta tissue
<b>Cited Species:</b> human	<b>IF :</b> human tonsillitis tissue,
<b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	

## Background Information

Human major histocompatibility complex (MHC) antigens, also referred to as human leukocyte antigens (HLA), are encoded by genes located on the short arm of chromosome 6 (6p21.3). There are two classes of HLA antigens: class I and class II. This class I molecules are membrane glycoproteins composed of a heavy (alpha) chain which is encoded by a HLA class I gene, and  $\beta$  2-microglobulin light (beta) chain. The most extensively characterized members of the HLA class I gene family are the genes encoding the major transplantation antigens, HLA-A, B and C. HLA-E is a non-classical MHC class I molecule. HLA-E is frequently overexpressed in tumor diseases, transplants and virus-infected cells and represents an immunomodulatory molecule by binding to the receptors CD94/NKG2A, -B and -C on NK and T cells. Due to its immune suppressive features HLA-E expression might represent an important mechanism of tumors to escape immune surveillance. (PMID: 667938; 3375250; 2249951; 27589686)

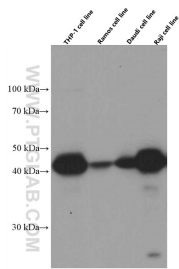
## Notable Publications

Author	Pubmed ID	Journal	Application
Xiaowei Liu	36706761	Cancer Cell	WB

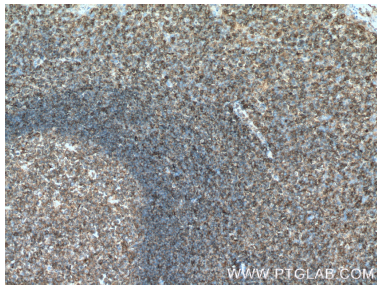
## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
 Aliquoting is unnecessary for -20°C storage

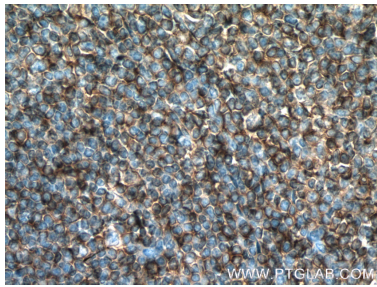
Selected Validation Data



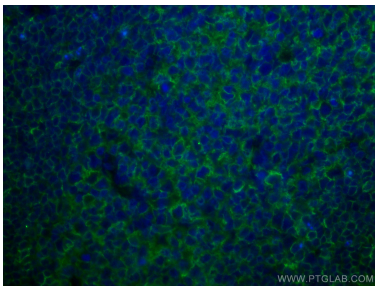
THP-1, Ramos, Daudi, and Raji cells were subjected to SDS PAGE followed by western blot with 66530-1-Ig (HLA-E antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



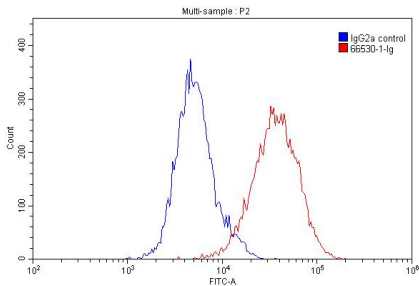
Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 66530-1-Ig (HLA-E antibody) at dilution of 1:400 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 66530-1-Ig (HLA-E antibody) at dilution of 1:400 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed human tonsillitis tissue using HLA-E antibody (66530-1-Ig, Clone: 1A4G3 ) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



1X10<sup>6</sup> THP-1 cells were stained with 0.20ug HLA-E antibody (66530-1-Ig, red) and control antibody (blue). Fixed with 90% MeOH.