

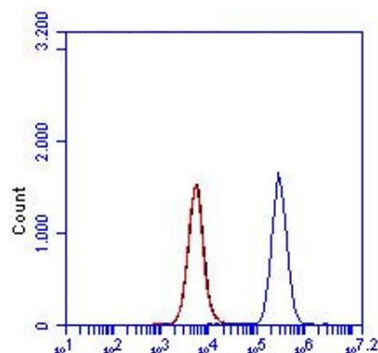
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	CD73, Human, clone 4G4	Expiry date	-
Catalog number	HM2215-20UG	Amount	20 µg
Lot number	-	Concentration	100 µg/ml
Volume	200 µl	Conjugate	None
Formulation	0.2 µm filtered in PBS+0.1%BSA	Purification	Protein G
Host Species	Mouse IgG1		
Endotoxin	<24 EU/mg		
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #	3		3	1-3	2		1	1
Yes	•		•	•	•		•	•
No								
N.D.		•				•		

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



FC: detection of human CD73 on Huvec cells. Black, red and blue line represents cells only, isotype control and 4G4 (4 µg/ml, respectively).

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- IHC-F: Tissue sections were fixed in acetone. As positive control anti-CD31 was used and as negative control an isotype antibody (Ref.3).
- FC: Antibody 4G4 stains the extracellular domain of CD73. As positive control anti-CD3 was used and as negative control an irrelevant antibody.
- FS: Antibody 4G4 showed increase lymphocyte adhesion to EC after Cd73 engagement (Ref.2).
- IF: HUVEC cells were seeded on gelatin-coated coverslips and stained with antibody (Ref.3).

General Information

Description

The monoclonal antibody 4G4 recognizes both membrane bound and soluble human CD73, also known as ecto-5'-nucleotidase. CD73 is a 70-kDa GPI-anchored cell surface molecule and belongs to the 5'-nucleosidase family. CD73 is useful as marker for lymphocyte differentiation. It is abundantly expressed on the vascular endothelium and at a low level on certain subpopulations of human lymphocytes. Like many glycosyl-phosphatidylinositol (GPI)-anchored molecules, it transmits potent activation signals in T cells when ligated by antibodies. CD73 hydrolyzes extracellular nucleotides into membrane permeable nucleosides. Ecto-5'-nucleotidase activity is an important mediator of the anti-inflammatory effect by converting extracellular AMP into a potent anti-inflammatory substance adenosine. CD73 has been shown to function as a co-stimulatory molecule in human T cells and to have a role in regulating lymphocyte adhesion. Triggering of CD73 on the surface of lymphocytes, but not on endothelial cells, results in the shedding of the CD73 and increased adhesion of lymphocytes to endothelium via LFA-1 clustering. Furthermore, CD73 has been implicated to mediate homing of skin-infiltrating lymphocytes in vivo. In B-cell chronic lymphocytic leukemia the

expression of CD73 is decreased. Besides this, CD73 activity has been implicated as sensitive and useful indicator for mild zinc deficiency.

Immunogen	Inflamed synovial stroma from rheumatoid arthritis patients.
Aliases	5'-nucleotidase, ecto (CD73).
Gene	Gene name: NT5E
References	<ol style="list-style-type: none">1. Airas, L et al; Differential regulation and function of CD73, a glycosyl-phosphatidylinositol-linked 70-kD adhesion molecule, on lymphocytes and endothelial cells. <i>J Cell Biol</i> 1997, <i>136</i>: 4212. Airas, L et al; CD73 engagement promotes lymphocyte binding to endothelial cells via a lymphocyte function-associated antigen-1-dependent mechanism. <i>J Immunol</i> 2000, <i>165</i>: 54113. Niemelä, J et al; IFN-alpha induced adenosine production on the endothelium: a mechanism mediated by CD73 (ecto-5'-nucleotidase) up-regulation. <i>J Immunol</i> 2004, <i>172</i>: 1646
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Brenda Teunissen

Date
02/12/2020

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.