BECKMAN COULTER
MADE IN France

IOTest
Conjugated Antibody
CD73-PE

	Specifications
Specificity	CD73
Clone	AD-2
Hybridoma	N/A
Immunogen	Human CD73
Isotype	IgG1k
Species	Mouse
Purification	Affinity Chromatography
Fluorochrome	R Phycoerythrin (PE)
Molar ratio	PE / Ig: 0.5-1.5
λ excitation	488 nm
Emission Peak	575 nm
Buffer	PBS pH 7.2 plus 2 mg / mL BSA and 0.1% NaN_3

REF B68176 Liquid - 1 mL

Analyte Specific Reagent.
Analytical and performance characteristics are not established

REAGENTS
Concentration: See lot specific Certificate of Analysis at www.beckmancoulter.com.

WARNING AND PRECAUTIONS
1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.
8. Any change in the physical appearance of the reagents may indicate deterioration and the reagent should not be used.

GHS HAZARD CLASSIFICATION
Not classified as hazardous

STORAGE AND HANDLING CONDITIONS AND STABILITY
This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze.

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

CONTENTS
Sodium azide preservative may form explosive compounds in metal drain lines. See NIOSH Bulletin: Explosive Azide Hazard (8/16/76).
To avoid the possible build-up of azide compounds, flush wastepipes with water after the disposal of undiluted reagent. Sodium azide disposal must be in accordance with appropriate local regulations.

SPECIFICITY

CD73, also called ecto-5'-NT, is a 70 kDa 5'-nucleotidase anchored to the membrane by a glycosylphosphatidylinositol (GPI) structure (1, 2). Structurally, CD73 is a dimer of two identical 70 kD subunits. A soluble form of CD73 can be shed from the membrane through proteolytic cleavage or hydrolysis of the GPI anchor by phosphatidylinositol-specific phospholipase (3). CD73 is expressed on subsets of T and B cells, follicular dendritic cells and on epithelial and endothelial cells (4). CD73 possesses the enzymatic activity of a 5'-nucleotidase and catalyzes the dephosphorylation of purine and pyrimidine ribo- and deoxyribonucleoside monophosphates to theirs corresponding nucleosides. An alternate function for CD73 is to regulate the availability of adenosine by converting AMP to adenosine (1, 2). There is evidence that the expression and function of this enzyme are upregulated under hypoxic conditions, as well as by the presence of several pro-inflammatory mediators, such as transforming growth factor (TGF)-β, interferons (IFNs), tumor necrosis factor (TNF)-α, interleukin (IL)-1β and prostaglandin E2 (3). CD73 can transmit activation signals to T cells and mediates adhesion of lymphocytes to follicular dendritic cells and endothelial cells (2). The CD73/adenosine pathway is a potent additional suppressive pathway of Treg cells and also confers a suppressive anti-inflammatory function on the uncommitted primed precursor Thpp cell type (5).

The monoclonal antibody AD-2 has been assigned to the CD73 cluster of differentiation at the Fourth International Workshop on Human Leucocyte Differentiation Antigens held in Vienna, Austria (1989) (1).

TRADEMARKS

ADDITIONAL INFORMATION

For additional information, or if damaged product is received, call Beckman Coulter Customer Service at 800-526-7694 (USA or Canada) or contact your local Beckman Coulter Representative.

REFERENCES

1. Leucocyte Typing IV: White Cell Differentiation Antigens: Proceedings of the Fourth International Workshop and Conference held in Vienna, Austria, W. Knapp et al., Oxford Publishing, 1989. B13: B-cell antigens: CD73 report, page 102.
2. Leucocyte Typing V: White Cell Differentiation Antigens: Proceedings of the Fifth International Workshop and Conference held in Boston, USA, S. Schlossman et al., Oxford Publishing, 1995. B13: CD73 Workshop Panel report, page 564.
3. Antonioli, L. et al. CD39 and CD73 in immunity and inflammation. Trends Mol Med. 2013, 19, 355–367.
4. Zola H, et al. 2007. Leukocyte and stromal Cell Molecules: the CD Markers. A John Wiley & Sons Inc, Publication, page 165.
5. Kobie, J. et al. T Regulatory and Primed Uncommitted CD4 T Cells Express CD73, Which Suppresses Effector CD4 T Cells by Converting 5-Adenosine Monophosphate to Adenosine. J. Immunol. 2006; 177, 6780-6786.

IMMUNOTECH S.A.S. a Beckman Coulter Company, 130, avenue de Lattre de Tassigny,
BP 177, 13276 Marseille cedex 9, France, 33-491 172 727