

## Technical Data Sheet

## PerCP-Cy™5.5 Mouse Anti-Human CD73

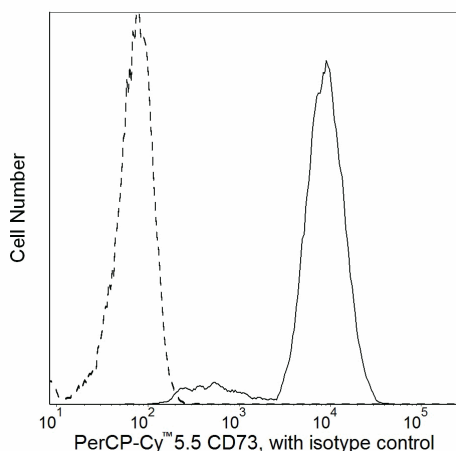
## Product Information

|                         |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| <b>Material Number:</b> | <b>561260</b>                                                              |
| <b>Alternate Name:</b>  | NT5E; 5' nucleotidase; 5'-NT; E5NT; Ecto-5'-nucleotidase; eN; eNT; NT; NT5 |
| <b>Size:</b>            | 50 tests                                                                   |
| <b>Vol. per Test:</b>   | 5 µl                                                                       |
| <b>Clone:</b>           | AD2                                                                        |
| <b>Isotype:</b>         | Mouse IgG1, κ                                                              |
| <b>Reactivity:</b>      | QC Testing: Human                                                          |
| <b>Workshop:</b>        | V B-CD73.3                                                                 |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing BSA and ≤0.09% sodium azide.          |

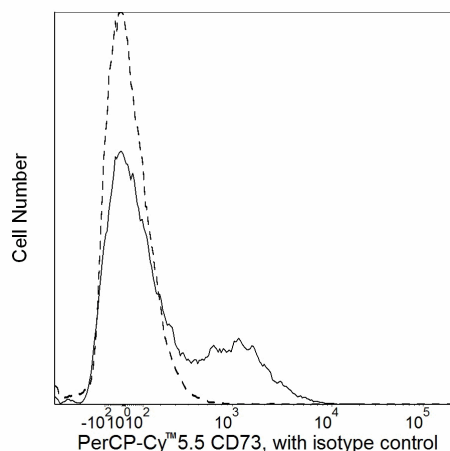
## Description

The AD2 monoclonal antibody specifically binds to ecto-5'-nucleotidase, a 70 kDa, glycosyl phosphatidylinositol (GPI)-anchored glycoprotein. CD73 is expressed on bone marrow derived multipotent mesenchymal stem cells (MSCs), also sometimes identified as mesenchymal stem cells, and is one of the three positive markers that has been identified by the International Society for Cell Therapy (ISCT) for the minimum criteria for identifying MSCs. Additionally CD73 is expressed on subsets of T and B lymphocytes, follicular dendritic cells, epithelial cells, and endothelial cells. Its expression on lymphocytes increases during T and B cell development. CD73 has enzymatic activity and catalyzes the dephosphorylation of adenosine monophosphate (AMP) converting it to adenosine. It has been suggested that CD73 can mediate costimulatory signals in T cell activation and adhesion of lymphocytes to endothelium.

Due to the expression characteristics of this molecule on different cell types, this PerCP-Cy™5.5 format is only recommended for use on cells expressing high amounts of CD73, such as MSCs.



**Flow cytometric analysis of CD73 expression on human mesenchymal stem cells.** Human mesenchymal stem cells (Lonza) at passage 7 were harvested using Accutase™ Cell Detachment Solution (Cat. No. 561527) and stained with PerCP-Cy™5.5 Mouse Anti-Human CD73 antibody (Cat. No. 561260; solid line histogram) or a PerCP-Cy™5.5 mouse IgG1, κ Isotype Control (Cat. No. 550795; dashed line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometry was performed using a BD LSRFortessa™ Flow Cytometry System.



**Flow cytometric analysis of CD73 on human lymphocytes.** Whole blood was stained with PerCP-Cy™5.5 Mouse anti-Human CD73 (Cat. No. 561260; solid line fluorescence histogram) and compared with whole blood stained with FITC Mouse IgG1, κ Isotype Control (Cat. No. 550795; used at a matching concentration; dashed line histogram). The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). Flow cytometric fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometry System.

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## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

## Application Notes

### Application

Flow cytometry

Routinely Tested

## Suggested Companion Products

| Catalog Number | Name                                     | Size   | Clone   |
|----------------|------------------------------------------|--------|---------|
| 561527         | Accutase™ Cell Detachment Solution       | 100 ml | (none)  |
| 550795         | PerCP-Cy5.5 Mouse IgG1 κ Isotype Control | 0.1 mg | MOPC-21 |
| 554656         | Stain Buffer (FBS)                       | 500 ml | (none)  |
| 555899         | Lysing Buffer                            | 100 ml | (none)  |

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100-μl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
5. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
6. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
7. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
8. PerCP-Cy5.5-labelled antibodies can be used with FITC- and R-PE-labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
9. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
10. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
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## References

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