

## Technical Data Sheet

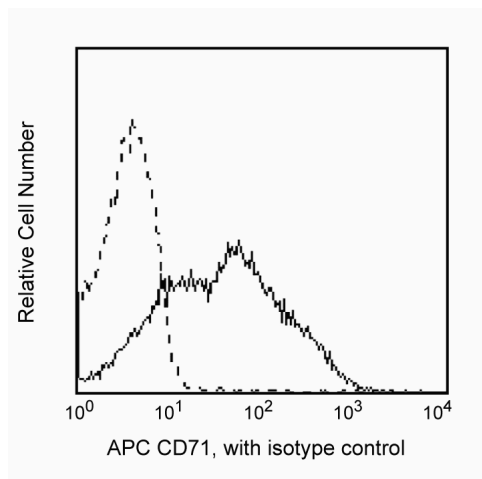
## APC Mouse Anti-Human CD71

## Product Information

<b>Material Number:</b>	<b>551374</b>
<b>Alternate Name:</b>	TFR; TFRC; Trfr; TfR1; Transferrin receptor protein 1
<b>Size:</b>	100 Tests
<b>Vol. per Test:</b>	20 µl
<b>Clone:</b>	M-A712
<b>Isotype:</b>	Mouse (BALB/c) IgG2a, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

The M-A712 monoclonal antibody specifically binds to CD71 which is also known as the transferrin receptor (TFR). This type II transmembrane glycoprotein is expressed on cells as a disulfide-linked homodimer comprised of 95 kDa monomers. CD71 is expressed on activated lymphocytes, monocytes, macrophages, erythroid progenitors, brain endothelium, and most proliferating cells. CD71 is not expressed on resting lymphocytes and is upregulated during lymphocyte responses to antigens or mitogens. Through an endocytic pathway, the transferrin receptor mediates cellular iron uptake by binding and internalizing iron that is bound to transferrin. After releasing iron within the low pH endosomal environment, transferrin and its receptor can be recycled to the cell surface.



Profile of PHA-stimulated (3 days) peripheral blood mononuclear cells analyzed by flow cytometry

## Preparation and Storage

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

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

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

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## Recommended Assay Procedure:

This reagent has been pre-diluted for use at the recommended volume per test. We typically use 1,000,000 cells in a 100-µl experimental sample (a test).

## Suggested Companion Products

Catalog Number	Name	Size	Clone
555576	APC Mouse IgG2a, κ Isotype Control	100 Tests	G155-178

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).

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4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

#### **References**

Barclay NA, Brown MH, Birkeland ML, et al, ed. *The Leukocyte Antigen FactsBook*. San Diego, CA: Academic Press; 1997(Biology)

Knapp W. W. Knapp .. et al., ed. *Leucocyte typing IV : white cell differentiation antigens*. Oxford New York: Oxford University Press; 1989:1-1182. (Biology)