Datasheet: MCA1148PET

Description:	MOUSE ANTI HUMAN CD71:RPE
Specificity:	CD71
Other names:	TRANSFERRIN RECEPTOR
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	DF1513
Isotype:	IgG1
Quantity:	25 TESTS

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species

Human

Species Cross Reactivity

Reacts with: Rhesus Monkey, Mustelid, Ferret
N.B. Antibody reactivity and working conditions may vary between species.

Product Form

Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution

Reconstitute in 0.25 ml disilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant.

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin
5% Sucrose

Immunogen

KGI cell line.

External Database Links	**UniProt:** P02786 Related reagents **Entrez Gene:** 7037 TFRC Related reagents
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NSI myeloma cell line.
Specificity	**Mouse anti Human CD71 antibody, clone DF1513** recognizes the human CD71 cell surface antigen, a ~190 kDa homodimeric glycoprotein expressed by proliferating cells. CD71 is also known as the transferrin receptor. Mutation of the TFRC gene has been implicated in the development of Immunodeficiency 46 (IMD46) a combined immunodeficiency characterized by early onset chronic diarrhea, recurrent infections and intermittent neutropenia and thrombocytopenia (Jabara *et al.* 2016)
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Sopper, S. *et al.* (1997) Lymphocyte subsets and expression of differentiation markers in blood and lymphoid organs of rhesus monkeys. Cytometry. 29 (4): 351-62. 2. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. Vet Immunol Immunopathol. 132:109-15. 3. Meng, J. *et al.* (2011) Contribution of human muscle-derived cells to skeletal muscle regeneration in dystrophic host mice. PLoS One. 6(3):e17454. 4. Stockwin, L.H. *et al.* (2009) Artemisinin dimer anticancer activity correlates with heme-catalyzed reactive oxygen species generation and endoplasmic reticulum stress induction. Int J Cancer. 125: 1266-75. 5. Janes, P.W. *et al.* (1999) Aggregation of lipid rafts accompanies signaling via the T cell antigen receptor. J Cell Biol. 147: 447-61. 6. Makoveichuk, E. *et al.* (2012) Inactivation of lipoprotein lipase occurs on the surface of THP-1 macrophages where oligomers of angiopoietin-like protein 4 are formed. Biochem Biophys Res Commun. 425:138-43. 7. Procaccini, C. *et al.* (2012) Leptin-induced mTOR activation defines a specific molecular and transcriptional signature controlling CD4+ effector T cell responses. J Immunol. 189: 2941-53. 8. Weissgerber, P. *et al.* (2003) Investigation of mechanisms involved in phagocytosis of Legionella pneumophila by human cells. FEMS Microbiol Lett. 219 (2): 173-9. 9. Trakarnsanga, K. *et al.* (2017) An immortalized adult human erythroid line facilitates sustainable and scalable generation of functional red cells. Nat Commun. 8: 14750.
Storage	Prior to reconstitution store at +4ºC. Following reconstitution store at +4ºC. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	12 months from date of reconstitution.
Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:RPE (MCA928PE)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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