

Monoclonal Antibody to CD71 / TFRC - PE

Alternate names:	TfR1, Transferrin receptor protein 1, p90
Catalog No.:	AM08050RP-N
Quantity:	0.1 mg
Concentration:	0.1 mg/ml
Background:	<p>CD71, a type II transmembrane glycoprotein expressed on the cell surface as a homodimer, is the Transferrin Receptor. It is essential for the growth of normal and neoplastic cells. (Ref.1,4) It is expressed at low levels on resting B and T lymphocytes but is upregulated during responses to antigens and mitogens, presumably reflecting the iron dependence of proliferation. (Ref.4) Its expression declines with maturation and differentiation. CD71 plays a critical role in cell proliferation by controlling the supply of iron, which is essential for many metabolic pathways, through the binding and endocytosis of transferrin, the major iron-carrying protein. It may also be involved in signal transduction via its association with the T cell receptor zeta chain.</p> <p>Clone RI7217 inhibits cell proliferation <i>in vitro</i>. (Ref.2)</p>
Uniprot ID:	Q62351
NCBI:	NP_035768.1
GeneID:	22042
Host / Isotype:	Rat / IgG2a
Clone:	RI7217
Format:	<p>State: Liquid purified Ig fraction. Buffer System: PBS containing 0.09% Sodium Azide as preservative and a stabilizing agent. Label: PE – R-Phycoerythrin</p>
Applications:	<p>Flow Cytometry: < / = 0.2 µg/10e6 cells. (Ref.1-3,5) Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>
Specificity:	<p>This antibody recognises CD71/Transferrin Receptor, Mr 180-190 kDa (90-95 kDa under reducing conditions). Species: Mouse. Other species not tested.</p>
Storage:	<p>Store the antibody undiluted at 2-8°C. DO NOT FREEZE! This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.</p>

General Readings:

1. Lesley, J., R. Hyman, R. Schulte, and J. Trotter. 1984. Cell Immunol. 83:14.
2. Kemp, J. D., J. A. Thorson, F. Gomez, K. M. Smith, J. S. Cowdery, and Z. K. Ballas. 1989. Cell Immunol. 122:218.
3. Lesley, J.F., and R.J. Schulte. 1985. Mol. Cell. Biol. 5:1814.
4. Kemp, J. D., J. A. Thorson, T. H. McAlmont, M. Horowitz, J. S. Cowdery, and Z. K. Ballas. 1987. J. Immunol. 138:2422.
5. Sauvage, C.A., J.C. Mendelsohn, J.F. Lesley, and I.S. Trowbridge. 1987. Cancer Res.47:747.

Pictures:

Immunofluorescent Staining: Fresh BALB/c spleen cells were activated by incubation for 72 hours with concanavalin A. Control cells were incubated in medium alone. At the end of 72 hours, the cells were harvested and stained with Rat anti-Mouse CD72-PE. Total cells were then gated and analyzed on a FACScan(TM) flow cytometer (BDIS, San Jose, CA). Amount Used: < / = 0.1 µg/10e6 cells.

