

AM05666BT-N**Monoclonal Antibody to Ly6A/E / SCA1 - Biotin**

Alternate names:	Ly-6A.2/Ly-6E.1, Lymphocyte antigen 6A-2/6E-1, SCA-1, Stem cell antigen 1, T-cell-activating protein, TAP
Quantity:	0.1 mg
Concentration:	0.5 mg/ml
Background:	Ly6A/E is also known as stem cell antigen-1 (Sca-1). It is an 18kDa mouse glycosyl phosphatidylinositol-anchored cell surface protein of the Ly6 gene family. It is expressed on multipotent hematopoietic stem cells in bone marrow of mice with both the Ly6.1 and Ly6.2 allotypes. As such, it is the most common marker used for enriching adult hematopoietic stem cells. It has varied functions, it plays a role in bone formation, myoblast proliferation and differentiation and the activation and immunosuppressive function of T cells.
Uniprot ID:	P05533
NCBI:	NP_034868
GeneID:	110454
Host / Isotype:	Rat / IgG2a
Clone:	D7
Immunogen:	IL-2-dependent mouse T cell line CTL-L.
Format:	State: Liquid purified IgG Buffer System: PBS containing 0.09% Sodium Azide and 1% Bovine Serum Albumin Label: Biotin
Applications:	Western Blot. Immunoprecipitation. Flow Cytometry: 1/5 - 1/10. Use 10 µl of suggested working dilution to label 1 x 10 ⁶ cells in 100 µl. Immunohistochemistry on frozen sections. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody recognises members of the lymphocyte activation protein-6 (Ly6) multigene family. Specifically, it recognises Ly6A.2 and Ly6E.1. Clone D7 has been reported to induce T cell activation. Species: Mouse. Other species not tested.
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings:

1. Holmes C, Stanford WL. Concise review: stem cell antigen-1: expression, function, and enigma. *Stem Cells*. 2007 Jun;25(6):1339-47. Epub 2007 Mar 22. PubMed PMID: 17379763.
2. Ortega G, Korty PE, Shevach EM, Malek TR. Role of Ly-6 in lymphocyte activation. I. Characterization of a monoclonal antibody to a nonpolymorphic Ly-6 specificity. *J Immunol*. 1986 Nov 15;137(10):3240-6. PubMed PMID: 2430016.
3. Malek TR, Ortega G, Chan C, Kroczek RA, Shevach EM. Role of Ly-6 in lymphocyte activation. II. Induction of T cell activation by monoclonal anti-Ly-6 antibodies. *J Exp Med*. 1986 Sep 1;164(3):709-22. PubMed PMID: 3489060.