Recombinant CD6/Cluster of Differentiation 6 Monoclonal Antibody

catalog number: AN300549P

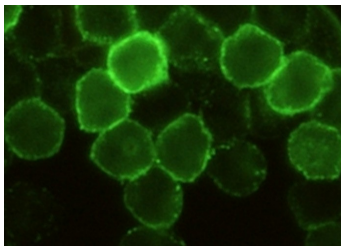
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Mouse
Immunogen	Recombinant Mouse CD6/Cluster of Differentiation 6 protein
Host	Rabbit
Isotype	IgG
Clone	B479
Purification	Protein A
Buffer	0.2 μm filtered solution in PBS

Applications	Recommended Dilution
ICC/IF	1:20-1:100

Data



Immunofluorescence analysis of Mouse CD6 in mouse splenocytes. Cells were fixed with 4% PFA, blocked with 10% serum, and incubated with rabbit anti-mouse CD6 monoclonal antibody (1:60) at 37°C 1 hour. Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-rabbit IgG secondary antibody (green).

Preparation & Storage

Storage	This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles.
Shipping	Ice bag

Background

Toll-free: 1-888-852-8623
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CD6 is a member of the group B scavenger receptor cysteine-rich (SRCR) superfamily. CD6 is a type I membrane glycoprotein and contains three extracellular SRCR domains. CD6 is expressed at low levels on immature thymocytes and at high levels on mature thymocytes. The majority of peripheral blood T cells, a subset of B cells, and a subset of neuronal cells express CD6. Mouse CD6 is a 626 amino acid (aa) protein with a 24 aa signal sequence, a 372 aa extracellular domain, and a 204 aa cytoplasmic region. The 668 aa human homolog has also been identified. The human and murine proteins share 70% aa identity over their full lengths. CD6 appears to play a role as both a co-stimulatory molecule in T cell activation and as an adhesion receptor. Studies demonstrating a mitogenic effect for T cells with some CD6 specific monoclonal antibodies, in conjunction with either accessory cells or PMA and anti-CD2 mAb, support the concept of CD6 as a co-stimulatory molecule. Additionally, anti-CD6 monoclonal antibody has been used as an immunosuppressive agent for patients undergoing kidney or bone marrow allograft rejection. It has also been used to remove CD6+ T cells from donor bone marrow prior to allogenic bone marrow transplantation. Other studies have demonstrated an adhesive role for CD6, it has been demonstrated to bind the activated leukocyte cell adhesion molecule (ALCAM, CD166). CD6/ALCAM interactions have been postulated to play a role in thymocyte development. Additionally, the presence of ALCAM on neuronal cells may provide a mechanism of interaction between CD6+ T cell and ALCAM+ neuronal cells. Phosphorylation of the CD6 molecule appears to play a role in CD6-mediated signal transduction. Serine and threonine residues become hyperphosphorylated and tyrosine residues become phosphorylated when T cells are activated with anti-CD6 mAb in conjunction with PMA, anti-CD2, or anti-CD3 mAb. The CD6 intracellular domain contains regions that can interact with SH2 or SH3 containing proteins.

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