



Category: Monoclonal Antibodies **Cat. #** mab-SF-C042 **Product Name:** mouse CD40L

Description:

Monoclonal hamster anti-mouse CD40L. CD40 ligand (CD40L) is a 33 kDa type II membrane glycoprotein expressed mainly on the cell surface of activated T lymphocytes, but also exists as a soluble form extracellularly. CD40L is the ligand for CD40, a member of the TNF superfamily, which is expressed on the cell surface of B cells, macrophages/monocytes, dendritic cells, vascular endothelial cells, and epithelial cells. CD40L plays an important role in B cell proliferation, antibody class switching, modulation of apoptosis in the germinal center through interaction with B cells expressing CD40, and activation of CD4+ T cells. Mutation within the CD40L gene is linked to hyper IgM syndrome, an X linked immunodeficiency disease that is characterized by elevated level of serum IgM and decreased level of other isotypes.

Immunogen:

Activated mouse Th1 clone D1.6

Application:

Flow cytometry, IHC(frozen)

Species Reactivity:

Mouse. Others not tested.

Presentation:

50 mM Sodium Borate, 150 mM Sodium Chloride, 20% Glycerol and 0.05% Sodium azide, pH 8.0.

Aliquoting Instructions:

Do not dilute the entire reconstituted solution at once. Withdraw aliquots as needed with a micropipette and keep concentrated stock at 4°C. Dilute according to the particular application being used. In general, the 0.05M borate pH 8.0 containing 0.15M sodium chloride, 0.02% sodium azide, is a good diluent to use with most antibodies.

Specificity:

This antibody reacts with gp39 (CD40 Ligand, CD154), an accessory molecule expressed on activated T helper lymphocytes. MR1 monoclonal antibody inhibits *in vitro* activation of B lymphocytes by T helper cells by blocking interaction of gp39 with CD40. *In vivo* treatment with MR1 monoclonal antibody blocks the development of collagen-induced autoimmune arthritis and inhibits formation of germinal centers and generation of memory B cells.

Storage:

Store at 2~8°C for short term, freeze under -20°C for long term storage.

Size: 0.2 mg

Clone: MR-1

Isotype: IgG1

Host: Hamster

Form: Purified

Concentration: 0.5 mg/ml

Units on Hand: YES

References:

1. Stout, R. D. and Suttles, J., Immunol. Today 17: 487-92, 1996.
2. Grant, P. A., et al., EMBO J 15: 6691-700, 1996.
3. Armitage, R. J., et al., Nature 357: 80-2, 1992
4. Foy, TM., et al., J. Exp. Med. 178:1567, 1993.
5. Roy, M., et al. J., Immunol. 151:2497,1993.

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Contact: Antagene, Inc. | Tel: 1 (866) 964-2589 | Fax: 1 (888) 225-1868 | Email: Info@antageneinc.com