

Product datasheet for **AM08042PU-N**

Cd40 Rat Monoclonal Antibody [Clone ID: 1C10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	1C10
Applications:	FC, FN, IP
Recommended Dilution:	Flow Cytometry. (Ref.2) Immunoprecipitation. (Ref.2) Functional Assay: <i>In vitro</i> induction of proliferation of mature B lymphocytes. (Ref.2)
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Specificity:	This antibody is specific to Mouse CD40 (Mr. 45-50 kDa)
Formulation:	100 mM Borate Buffered Saline, pH 8.2. No preservatives or amine-containing buffer salts added. State: Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Conjugation:	Unconjugated
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.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD40 antigen
Database Link:	Entrez Gene 21939 Mouse P27512



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Background:

CD40 is a type I cell surface protein belonging to the tumor necrosis factor superfamily of cell surface receptors. In mice it is expressed on B lineage cells, follicular dendritic cells, thymic epithelium, and interdigitating cells in the T-cell zone of secondary lymphoid organs. (Ref.1-5) CD40 first becomes detectable on a subset of small pre-B II cells in bone marrow, with the levels of CD40 expression increasing thereafter during B-cell maturation. Immature B cells (IgM+IgDloB220lo) express intermediate levels of CD40, whereas mature B cells (IgM+IgDhiB220hi) express high levels. (Ref.4) CD40 has a central role in B cell growth and differentiation, and signalling through CD40 in combination with IL-4 reportedly induces immunoglobulin isotype switching and secretion of IgE. (Ref.6) The agonistic 1C10 antibody closely resembles gp39/CD40 ligand in its ability to stimulate proliferation of small, resting B lymphocytes in the absence of other cofactors. (Ref.2)

Synonyms:

TNFRSF5, CDw40, Bp50