

Product datasheet for **TA386107**

CD40 Rabbit Monoclonal Antibody [Clone ID: 5D12]

Product data:

Product Type:	Primary Antibodies
Clone Name:	5D12
Applications:	BI, ELISA, FC, IHC, IP
Reactivity:	Human, Cynomolgus, Monkey
Host:	Rabbit
Isotype:	IgG, kappa
Clonality:	Monoclonal
Immunogen:	Anti-CD40 mAb 5D12, was generated by immunizing mice with sf9 insect cells expressing recombinant human CD40 and selected for the ability to bind EBV-immortalized human B cells. The variable regions from mu5D12 were cloned and used to construct chimeric humanized IgG4 5D12.

Specificity: ch5D12 binds specifically to recombinant and native human CD40 ectodomain and has been shown to also bind CD40 in cynomolgus and marmoset monkeys. The antibody requires residues within D1 and D1/B2 for binding (Hager et al, 2003) (D1 domain is crucial for CD40L binding). Binding characteristics are very similar between humanized ch5D12 and mu5D12. CD40 is a glycoprotein of the TNFR superfamily and is expressed on all mature B cells, dendritic cells, activated monocytes, some endothelial cells and some epithelium including the thymus. CD40 binds to CD40L, and this interaction is involved in B-cell activation and proliferation, antigen-presenting cell (APC) activation, initiation of antigen-specific T-cell responses, immunoglobulin production, activation of effector macrophages isotype switching, homotypic adhesion and rescue from apoptosis.

ch5D12 is an antagonist of the CD40-CD40L pathway. ch5D12 binds to B cells and monocytes, but not to peripheral blood CD4+ and CD8+ cells. ch5D12 was tested in vivo using a marmoset EAE (experimental autoimmune encephalomyelitis) model (recombinant myelin oligodendrocyte glycoprotein (MOG) was used to induce EAE) - model for human multiple sclerosis. ch5D12 was able to prevent development of the symptoms of the disease during the treatment period, reduce the anti-MOG antibody response and reduce the formation of inflammatory lesions in the CNS. ch5D12 binding and specificity can be detected and measured by FC, SPR, ELISA and IP, and CD40+ cells can be stained by the antibody in IHC.

Formulation: PBS with 0.02% Proclin 300.



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Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.
Stability:	3 years from dispatch.
Gene Name:	CD40 molecule
Database Link:	Entrez Gene 958 Human P25942
Synonyms:	Bp50; CDW40; MGC9013; p50; TNFRSF5
Note:	This chimeric rabbit antibody was made using the variable domain sequences of the original Human IgG4 format, for improved compatibility with existing reagents, assays and techniques.