

Product datasheet for **TA386414**

Cd40 Rabbit Monoclonal Antibody [Clone ID: FGK45]

Product data:

Product Type:	Primary Antibodies
Clone Name:	FGK45
Applications:	FC, FN, WB
Reactivity:	Mouse
Host:	Rabbit
Isotype:	IgG, kappa
Clonality:	Monoclonal
Immunogen:	The original rat IgG2a antibody was raised against the recombinant mouse CD40 fusion protein.

Specificity: This antibody recognizes CD40. It is a type I transmembrane glycoprotein that belongs to the tumor necrosis factor receptor (TNFR) superfamily. CD40 is expressed broadly on antigen-presenting cells (APCs) such as dendritic cells, B cells, macrophages, and monocytes as well as non-immune endothelial cells, basal epithelial cells, and a range of tumors. Upon binding to its ligand CD154, CD40 acts as a costimulatory molecule for the activation of B cells, dendritic cells, monocytes, and other APCs.

FGK45 is an agonistic antibody that has been shown to activate CD40 expressing antigen presenting cells (APCs) what might promote anti-tumor T cell responses. For instance, the rat IgG2a version of this antibody was used to promote maturation of APCs what improved the ability of the macrophages to fight a tumour (Luheshi et al., 2016; pmid: 26918344). Another group used the same antibody to stimulate T-cells in a study on a tumor vaccine (Bartkowiak et al., 2015; pmid: 26351680). Others used ths clone as well to induce potent anti-tumor activity (Carmi et al., 2015; pmid: 25924063). On the other hand, it can also be used to inhibit CD40/CD154 interaction in vitro and in vivo. Furthermore, this clone can be also utilized to identify CD40-positive cells by flow cytometry (Rolink et al., 1996; pmid: 8885865). Administering this antibody can be also utilized to induce inflamatory bowel disease-like characteristics and create a mouse IBD model to study this class of diseases (Bauche et al., 2018; pmid: 30097293).

Formulation: PBS with 0.02% Proclin 300.

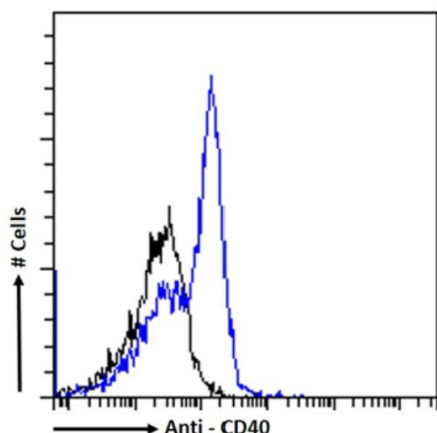
Concentration: lot specific



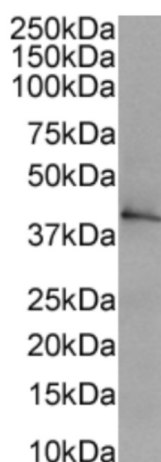
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Conjugation:	Unconjugated
Storage:	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.
Stability:	3 years from dispatch.
Gene Name:	CD40 antigen
Database Link:	Entrez Gene 21939 Mouse P27512
Synonyms:	Bp50; CDW40; MGC9013; p50; TNFRSF5
Note:	This chimeric rabbit antibody was made using the variable domain sequences of the original Rat IgG2a format, for improved compatibility with existing reagents, assays and techniques.

Product images:



Flow cytometry using the Anti-CD40 antibody FGK45 (TA386414). Paraformaldehyde fixed mouse splenocytes were stained with anti-unknown specificity antibody ([TA385792]; isotype control, black line) or the rabbit IgG version of FGK45 (TA386414, blue line) at a dilution of 1:100 for 1h at RT. After washing, the bound antibody was detected using a goat anti-rabbit IgG AlexaFluor® 488 antibody at a dilution of 1:1000 and cells analyzed using a FACSCanto flow-cytometer.



Western Blot using Anti-CD40 antibody FGK45 (TA386414). Mouse lymph node tissue lysate (35µg protein in RIPA buffer) were resolved on a SDS PAGE gel and blots were probed with the chimeric rabbit version of FGK45 (TA386414) at 2µg/ml before detection using an anti-rabbit secondary antibody. A primary incubation of 1h was used and protein was detected by chemiluminescence.