

# CD40, Mouse Monoclonal Rat Antibody (FGK45.5)



## Product Description

Upon binding to its ligand CD154, CD40 acts as a costimulatory molecule for the activation of B cells, dendritic cells, monocytes, and other APCs. CD40 plays roles in B cell activation, differentiation, proliferation and Ig isotype switching as well as dendritic cell maturation. FGK4.5 can be used for blocking of CD40/CD154 interaction and for in vitro and in vivo activation of CD40 expressing APCs. This MAb is shown to indirectly activate natural killer (NK) cells, producing significant antitumor and anti-metastatic effects. Effective in boosting immune responses against infectious agents and can potentially be used to treat chronic autoimmune inflammatory processes. Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors. **Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

## References

Note: References for this clone sold by other suppliers may be listed for expected applications.

Eur J Immunol (1999) 29: 2835-2841. (functional studies; Flow, surface)

## Product attributes

Antibody number	#2005
Antibody reactivity (target)	CD40
Antibody type	Primary
Host species	Rat
Clonality	Monoclonal
Clone	FGK45.5
Isotype	IgG2a, kappa
Molecular weight	48 kDa
Synonyms	B cell surface antigen CD40; CD40 type II isoform; p50; Bp50; CD40L receptor; CDW40; TRAP; IMD3; IGM; Tnfrsf5; HIGM1; GP39; T-BAM
Entrez gene ID	21939
SwissProt	P27512
Immunogen	Purified recombinant Mouse CD40 fusion protein
Antibody target cellular localization	Plasma membrane
Species reactivity	Mouse
Expected antibody applications	Flow, surface (published for clone), Functional studies (published for clone)
Positive control	MPBMC&apos;s. Spleen, Thymus or Lymph Node.
Shipping condition	Room temperature
Storage Conditions	Note: store BSA-free antibodies at -10 to -35 °C, Store at 2 to 8 °C, Protect fluorescent conjugates from light
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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