

**Attention:** Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at <https://bioxcell.com/terms-and-conditions>.

### Lot Specific Information

**Lot Number:** Lot Specific\*  
**Volume:** Lot Specific\*  
**Concentration:** Lot Specific\* (generally 4 to 11 mg/ml) \*  
**Total Protein:** Lot Specific\*

\*This information will be noted on the certificate of analysis that ships with this product.

### Product Information

**Catalog Number:** BP0016-2  
**Clone:** FGK4.5/FGK45  
**Isotype:** Rat IgG2a  
**Recommended Isotype Control(s):** InVivoPlus rat IgG2a isotype control, anti-trinitrophenol  
**Recommended Dilution Buffer:** InVivoPure pH 7.0 Dilution Buffer  
**Immunogen:** Recombinant mouse CD40 fusion protein  
**Reported Applications:** *in vivo* CD40 activation  
*in vitro* B cell stimulation/activation  
**Formulation:** PBS, pH 7.0  
Contains no stabilizers or preservatives  
**Endotoxin:** ≤0.5EU/mg (≤0.0005EU/μg)  
Determined by LAL gel clotting assay  
**Purity:** ≥95%  
Determined by SDS-PAGE  
**Sterility:** 0.2 μm filtration  
**Production:** Purified from cell culture supernatant in an animal-free facility  
**Purification:** Protein G  
**Aggregation:** <5%  
Determined by SEC  
**RRID:** [AB\\_1107601](https://abnova.com/AB_1107601)  
**Molecular Weight:** 150 kDa

### Murine Pathogen Test Results

Mouse Norovirus: Negative, Mouse Parvovirus: Negative, Mouse Minute Virus: Negative, Mouse Hepatitis Virus: Negative, Reovirus Screen: Negative, Lymphocytic Choriomeningitis virus: Negative, Lactate Dehydrogenase-Elevating Virus: Negative, Mouse Rotavirus: Negative, Theiler's Murine Encephalomyelitis: Negative, Ectromelia/Mousepox Virus: Negative, Hantavirus: Negative, Polyoma Virus: Negative, Mouse Adenovirus: Negative, Sendai Virus: Negative, Mycoplasma Pulmonis: Negative, Pneumonia Virus of Mice: Negative, Mouse Cytomegalovirus: Negative, K Virus: Negative

### Description

The FGK4.5 monoclonal antibody reacts with mouse CD40 also known as Bp50. CD40 is a 48 kDa 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. CD40 plays roles in B cell activation, differentiation, proliferation and Ig isotype switching as well as dendritic cell maturation. Agonistic CD40 monoclonal antibodies have been shown to activate APCs and promote anti-tumor T cell responses. The FGK4.5 antibody is an agonistic antibody that has been shown to activate CD40 expressing APCs. FGK4.5 can also be used to inhibit CD40/CD154 interaction *in vitro* and *in vivo*.

vivo.

## Storage

Store at the stock concentration at 4°C . **Do not freeze.**

It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at <https://bioxcell.com/faqs>.

## Protocol Information

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

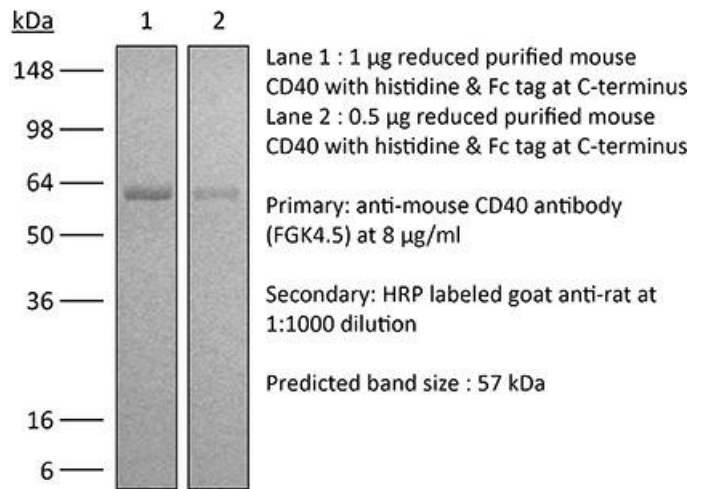
## Application References

For a complete list of references, visit [https://bioxcell.com/bp0016-2?bxcs=9k1b3a#tab\\_references](https://bioxcell.com/bp0016-2?bxcs=9k1b3a#tab_references) or scan the QR code below.



## Binding Validation

Validation data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, e-mail [technicalservice@bioxcell.com](mailto:technicalservice@bioxcell.com).



**Bio X Cell, LLC**  
<https://bioxcell.com>  
+1-866-787-3444  
[customerservice@bioxcell.com](mailto:customerservice@bioxcell.com)

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*Not for resale.*

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