

Product datasheet

Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free ab170969

Recombinant RabMAb

14 Images

Overview

Product name	Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free
Description	Rabbit monoclonal [PEG-B-47] to Polyethylene glycol - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: ELISA, WB, IHC-P
Species reactivity	Reacts with: Species independent
Immunogen	Chemical/ Small Molecule corresponding to Polyethylene glycol conjugated to keyhole limpet haemocyanin. KLH-Polyethylene glycol with a terminal methoxy group.
Positive control	IHC-P: Mouse kidney, spleen, muscle and liver tissue - (animals injected with a PEGylated protein).
General notes	<p>ab170969 is the carrier-free version of ab51257 This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.</p> <p>Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>Ab170969 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.</p> <p><i>Maxpar® is a trademark of Fluidigm Canada Inc.</i></p> <p>If you have any questions on our PEG products - please visit our Polyethylene glycol (PEG) FAQs page.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</p>

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

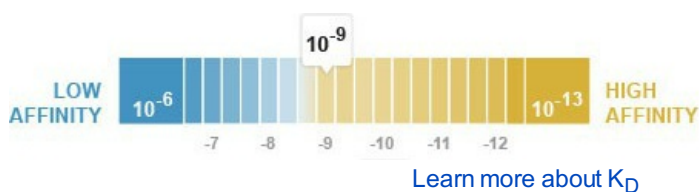
We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Dissociation constant (K_D)	K _D = 2.41 x 10 ⁻⁹ M



Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	PEG-B-47
Isotype	IgG

Applications

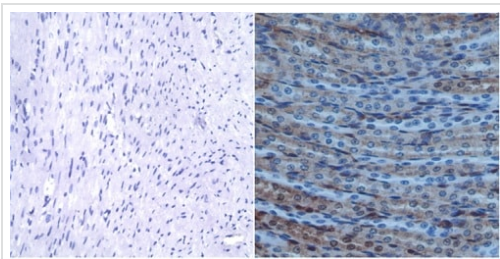
Our [Abpromise guarantee](#) covers the use of **ab170969** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. This antibody only works on the tissues when the animals are injected with a PEGylated protein. ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

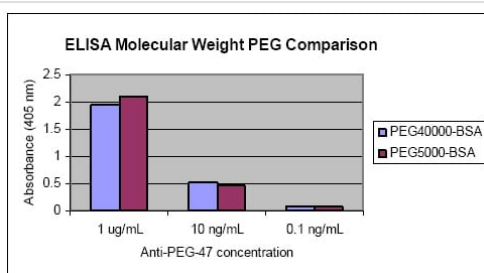
Target

Images



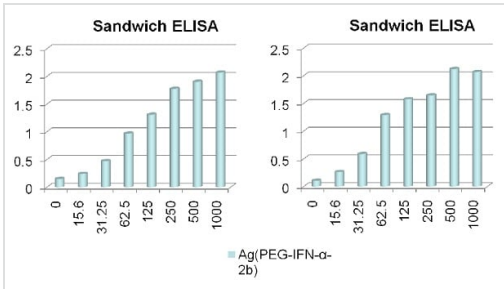
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

This IHC data was generated using the same anti-PEG antibody clone, PEG-B-47, in a different buffer formulation (cat# [ab51257](#)). [ab51257](#), unpurified, staining mouse kidney at 1:10 dilution. Left panel: without animal injection with a PEGylated protein. Right panel: with animal injection with a PEGylated protein.



ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

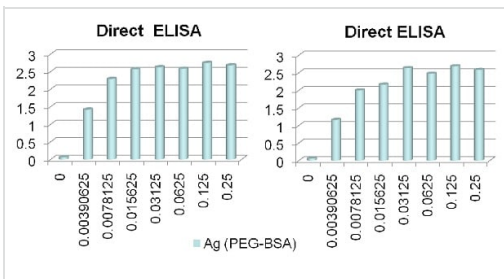
ELISA assay using [ab51257](#) to detect different forms of PEG. PEG40000-BSA is a 40 kDa PEG molecule attached to BSA. PEG5000-BSA is a 5 kDa linear PEG molecule attached to BSA. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

Sandwich ELISA-Left Graph generated using unpurified [ab51257](#) and right using purified [ab51257](#) at 1 µg/mL. Antigen concentration range 0.0156 - 1 µg/mL for PEG-IFN-α-2b. Secondary antibody was an Alkaline Phosphatase-conjugated Goat Anti-Rabbit IgG(H+L) at 1/2500.

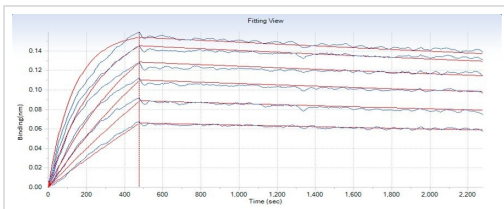
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

Direct ELISA-Left Graph generated using unpurified [ab51257](#) and right using purified [ab51257](#) at 1 µg/mL. Antigen concentration range 0.0039 - 0.25 µg/mL for PEG-BSA. Secondary antibody was an Alkaline Phosphatase-conjugated Goat Anti-Rabbit IgG(H+L) at 1/2500.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



Other - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

This antibody affinity data was generated using the same anti-PEG antibody clone, PEG-B-47, in a different buffer formulation ([ab51257](#)).

Method □ Protein A sensor + Antigen (PEG 5K-BSA at 0.3 µg/ml) + antibody ([ab51257](#) at 0.0312, 0.0625, 0.125, 0.25, 0.5, 1 µg/ml).

Results:

Sample ID: PEG-5K-BSA

KD (M): 2.41E-09

kon(1/Ms): 2.67E+04

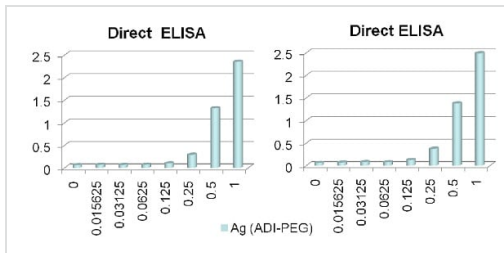
kon Error: 6.81E+02

kdis(1/s): 6.43E-05

kdis Error: 2.92E-06

Full X^2: 0.018444

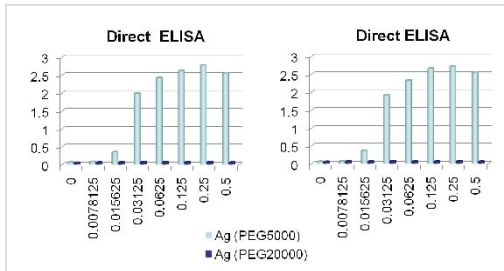
Full R^2: 0.982059



ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

Direct ELISA-Left Graph generated using unpurified [ab51257](#) and right using purified [ab51257](#) at 1 µg/mL. Antigen concentration range 0.0156 - 1 µg/mL for ADI-PEG. Secondary antibody was an Alkaline Phosphatase-conjugated Goat Anti-Rabbit IgG(H+L) at 1/2500.

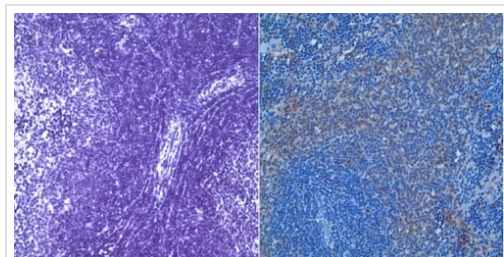
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

Direct ELISA-Left Graph generated using unpurified [ab51257](#) and right using purified [ab51257](#) at 1 µg/mL. Antigen concentration range 0.0078 - 0.5 µg/mL for both PEG5000 and PEG20000. Secondary antibody was an Alkaline Phosphatase-conjugated Goat Anti-Rabbit IgG(H+L) at 1/2500.

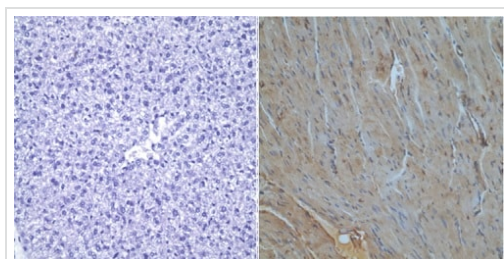
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

[ab51257](#), unpurified, staining mouse spleen at 1:10 dilution. Left panel: without animal injection with a PEGylated protein. Right panel: with animal injection with a PEGylated protein.

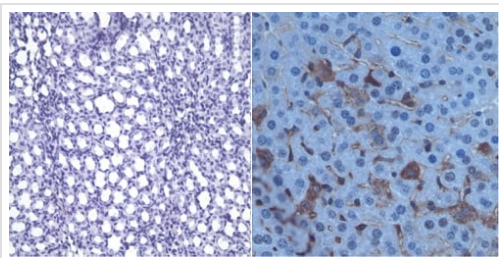
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

[ab51257](#), unpurified, staining mouse muscle at 1:10 dilution. Left panel: without animal injection with a PEGylated protein. Right panel: with animal injection with a PEGylated protein.

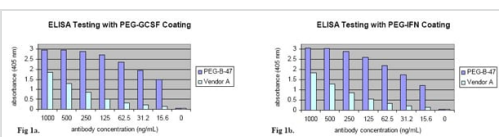
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

[ab51257](#), unpurified, staining mouse liver at 1:10 dilution. Left panel: without animal injection with a PEGylated protein. Right panel: with animal injection with a PEGylated protein.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

Comparison of [ab51257](#) and Vendor A mouse MAb in Direct ELISA assay.

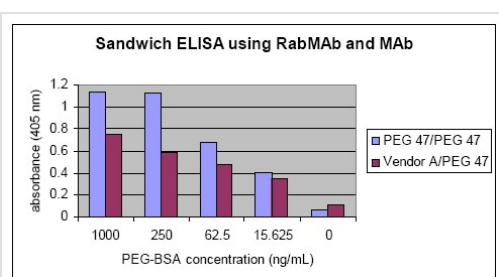
Goat anti-rabbit IgG-AP used for anti-PEG-47 detection; goat anti-mouse IgM-AP used for Vendor A MAb detection.

Fig 1a. Direct ELISA using 1 ug/mL of PEG-GCSF.

Fig 1b. Direct ELISA using 1 ug/mL of PEG-IFN.

Comparison to other anti-PEG: In both direct and sandwich ELISA assays, [ab51257](#) shows greater affinity and accuracy than other anti-PEG antibodies when determining the concentration of PEG or PEG-modified proteins. Results were similar whether detecting PEG itself or PEG-modified targets.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).



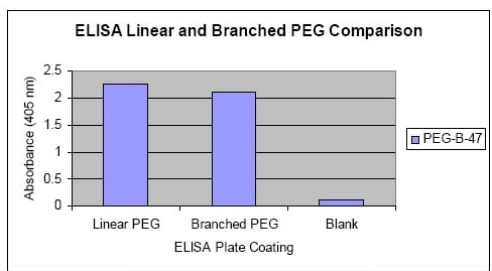
ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

Comparison of sandwich ELISA using RabMAb/RabMAb ([ab51257/ab51257](#)) and MAb/RabMAb (Vendor A/[ab51257](#)) for capture/detection.

[Ab51257/ab51257](#)*: Plate coated with 5 ug/mL of #47; 5 ug/mL of #47 used for detection (*Anti-PEG 47 biotin labeled)

Vendor A/ [ab51257](#)*: Plates coated with 100 ug/mL of Vendor A Mouse MAb; 5 ug/mL of #47 used for detection (*Anti-PEG 47 biotin labeled)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).







ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

Comparison of 10 ug/well of activated linear (PEG5K) and branched (PEG40K) PEG using 5 ug/ml of [ab51257](#) in Direct ELISA assay.

Accuracy: By detecting the methoxy group of the PEG molecule itself, [ab51257](#) is useful in measuring the pharmacokinetics of PEG-modified molecules in vivo. Data indicate that [ab51257](#) detects various length Y-chain PEG molecules as well as single chain PEG molecules with equal affinity. Ab51257 does not cross react with non-specific targets in blood or serum.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab51257](#)).

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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