

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

Recombinant RabMAb

[1 References](#) [7 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
Specificity	This antibody recognizes the terminal methoxy group of the PEG molecule. This antibody does not cross react with non-specific targets in blood or serum. Both free form of PEG (unconjugated version) and conjugated PEG were tested by sandwich ELISA using ab51257 ; results showed that ab51257 only detects conjugated forms of PEG.
Tested applications	Suitable for: ELISA, WB, IHC-P
Species reactivity	Reacts with: Species independent
Immunogen	Chemical/ Small Molecule. This information is proprietary to Abcam and/or its suppliers.
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.</p> <p>If you have any questions on our PEG products - please visit our Polyethylene glycol (PEG) FAQs page.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</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>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</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

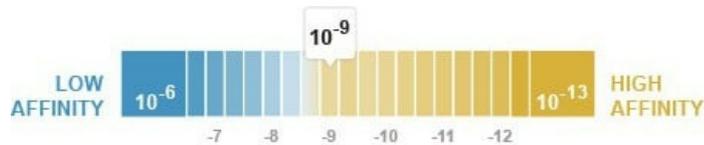
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

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



[Learn more about K_D](#)

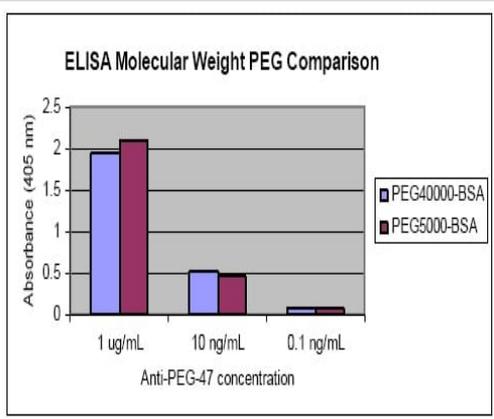
Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	PEG-B-47
Isotype	IgG

Applications

The Abpromise guarantee 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.

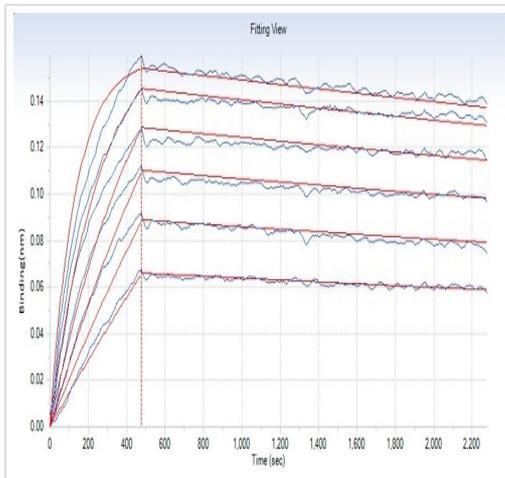
Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. This antibody only works on the tissues when the animals are injected with a PEGylated protein. ab199376 - Rabbit monoclonal IgG, is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

Target



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**).



OIR-D Scanning - 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 0.3µg/ml)+ antibody (**ab51257** at 0.0312, 0.0625, 0.125, 0.25, 0.5, 1 µg/m).

Results:

Sample ID: PEG-5K-BSA

KD (M): 2.41E-09

kon(1/Ms): 2.67E+04

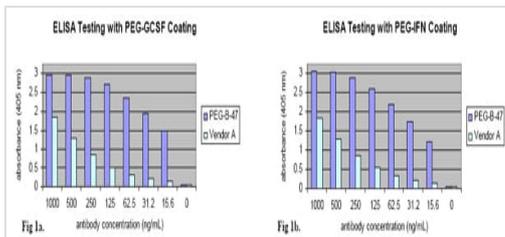
kon Error: 6.81E+02

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)

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.

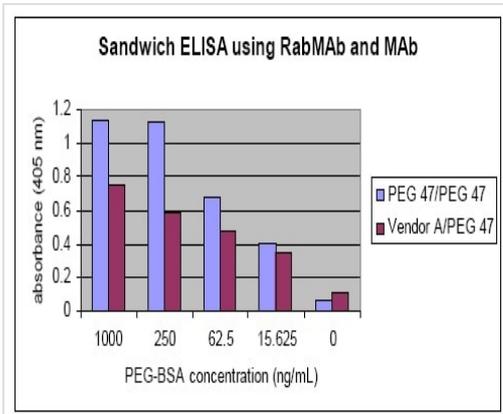
Fig 1a. Direct ELISA using 1 ug/mL of PEG-GCSF.

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](#)).



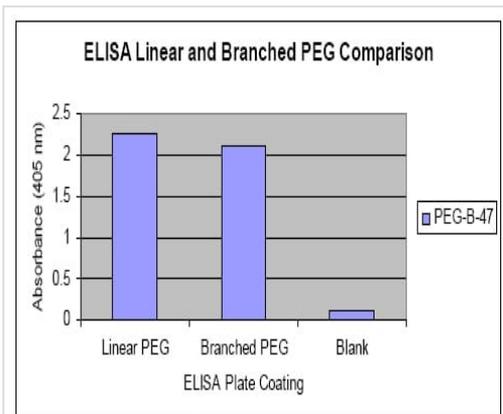
ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

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](#)).

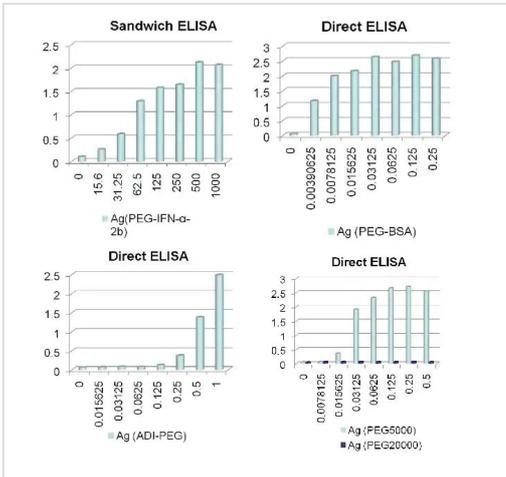


ELISA - Anti-Polyethylene glycol antibody [PEG-B-47] - BSA and Azide free (ab170969)

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](#)).



This data was developed using [ab51257](#), the same antibody clone in a different buffer formulation.

ELISA Graph generated using purified [ab51257](#) at 1 µg/mL.

Antigen concentration range:

PEG5000 and PEG20000: 0.0078 - 0.5 µg/mL

ADI-PEG: 0.0156 - 1 µg/mL

PEG-BSA: 0.0039 - 0.25 µg/mL

PEG-IFN-α-2b 0.0156 - 1 µg/mL

Secondary antibody was an Alkaline Phosphatase-conjugated Goat Anti-Rabbit IgG(H+L) at 1/2500.

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

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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