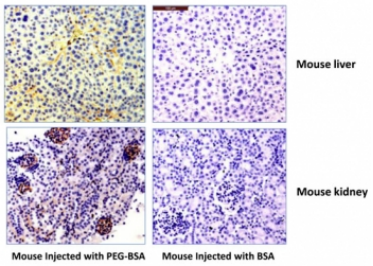
Recombinant PEG Antibody / Methoxy group [clone RM105] (R20194)

Catalog No.	Formulation	Size
R20194-100UG	1 mg/ml in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ug

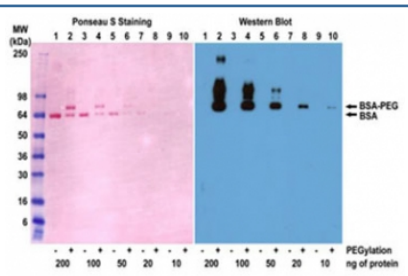
Recombinant RABBIT MONOCLONAL

Bulk quote request

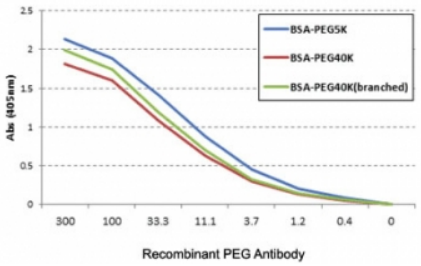
Availability	1-3 business days
Species Reactivity	All Species
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM105
Purity	Protein A purified from animal origin-free supernatant
Gene ID	N/A
Applications	ELISA : 0.01ug/ml-0.3ug/ml Immunohistochemistry : 0.5-2ug/ml Western Blot : 0.05ug/ml-1ug/ml
Limitations	This recombinant PEG antibody is available for research use only.



IHC testing of mouse liver and kidney using 0.5 ug/ml of recombinant PEG antibody. The mouse was injected with PEG-BSA or BSA for 3 hours before sampling. A pH6 Citrate buffer or pH9 Tris/EDTA buffer HIER step is recommended for testing of FFPE tissue sections.



Western blot of BSA and PEGylated BSA (mPEG 5 kDa) using the recombinant PEG antibody 0.1 ug/ml.



ELISA of three different PEGylated BSAs using the recombinant PEG antibody.

Description

The Recombinant PEG antibody is engineered as a recombinant reagent with specificity for methoxypolyethylene glycol, targeting the methoxy group of polyethylene glycol (PEG). PEG is a synthetic polymer widely used in biomedicine, particularly for modifying therapeutic proteins, peptides, and nanoparticles to improve their pharmacokinetics and reduce immunogenicity. By covalently attaching PEG, therapeutic molecules achieve extended circulation times and enhanced solubility. However, the increasing clinical use of PEGylated therapeutics has raised the need for reliable detection tools to monitor PEG modifications and to investigate anti-PEG immune responses. The Recombinant PEG antibody fulfills this role by providing high specificity for the methoxy group of PEG, enabling accurate detection in multiple assay formats.

Polyethylene glycol is a linear or branched polyether composed of repeating ethylene oxide units. The addition of a methoxy group stabilizes the polymer and is commonly incorporated in pharmaceutical formulations. While PEGylation confers advantages for drug delivery, some patients develop anti-PEG antibodies that can neutralize therapeutic efficacy or lead to adverse effects. The Recombinant PEG antibody targets this methoxy moiety, allowing researchers to track PEGylated molecules, measure anti-PEG immune responses, and validate PEG modifications in preclinical and clinical studies. Recombinant design ensures high batch-to-batch consistency and eliminates the variability often associated with polyclonal anti-PEG reagents.

The Recombinant PEG antibody is used in ELISA to quantify PEGylated therapeutics and to detect anti-PEG antibodies in patient sera. In western blotting, it identifies PEG-conjugated proteins and nanoparticles, confirming successful modification. In immunohistochemistry or imaging applications, the Recombinant PEG antibody highlights PEG-labeled structures within tissues or cells. The reagent is also valuable in pharmacokinetic studies, where it allows sensitive tracking of PEGylated drug candidates during development. Its methoxy-group specificity ensures precise detection of methoxypolyethylene glycol derivatives, which represent the most common form of PEG used in drug formulation.

This antibody is particularly important in biopharmaceutical research, where regulatory agencies require detailed characterization of PEGylated products and monitoring of potential anti-PEG responses. Synonym terms such as recombinant methoxypolyethylene glycol antibody and recombinant mPEG antibody improve discoverability for users working under alternate terminology.

By delivering validated and reproducible performance, the Recombinant PEG antibody supports accurate assessment of PEG modifications and anti-PEG immunity. NSJ Bioreagents ensures strict quality control, providing researchers and developers with a reliable reagent for ELISA, western blotting, and imaging assays. With its methoxy-specificity, the Recombinant PEG antibody is an indispensable tool for advancing PEGylated drug development and for monitoring immune responses in clinical studies.

This recombinant PEG antibody reacts to the methoxy group of Polyethylene glycol (PEG). It is specific for methoxypolyethylene glycol.

Application Notes

The stated application concentrations are suggested starting points. Titration of the recombinant PEG antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

KLH-PEG with a terminal methoxy group was used as the immunogen for this recombinant PEG antibody.

Storage

Store the recombinant PEG antibody at -20oC (with glycerol) or aliquot and store at -20oC (without glycerol).