Examples cont.

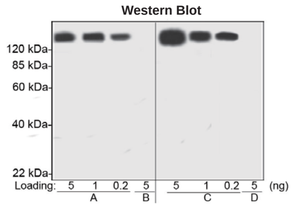


Fig 6. Sensitivity comparison of commercial Mouse Anti-PEG mAb (samples A,B: Clone AGP4, 0.2 µg/ml) with THE™ PEG Antibody, mAb, Mouse (C,D: GenScript, A01795-100, 0.2 µg/ml) by Western Blot.

A,C: PEGylated drug (Pegasys, Peginterferon Alfa 2A)
B,D: Interferon Alfa 2A protein

The test result showed GenScript PEG Antibody had better sensitivity than the other commercial product.

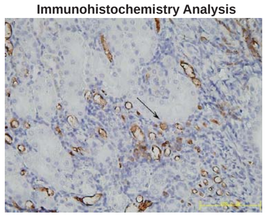


Fig 7. Immunohistochemistry analysis of mouse kidney tissue (Paraffin embedded) using THE™ PEG Antibody, mAb, Mouse (A01795-100, 10 µg/ml) after mice were injected with BSA-PEG.

The test result showed GenScript PEG Antibody was suitable for IHC application.

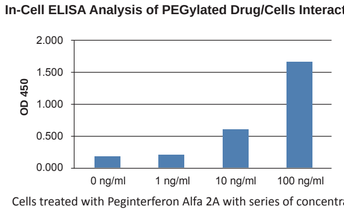


Fig 8. In-Cell ELISA analysis of PEGylated drug/HepG2 interaction using THE™ PEG Antibody, mAb, Mouse (A01795-100, 1 µg/ml) after HepG2 cells were treated with PEGylated drug (Pegasys, Peginterferon Alfa 2A) at different concentrations.

The test result showed GenScript PEG Antibody was suitable for the analysis of PEGylated drug/cell interaction.

Ordering Information

Cat.No	Antibody	Conjugation	Application	Size
A01795-100	THE™ PEG Antibody, mAb, Mouse	Unconjugated	ELISA,WB,IHC	100 µg
A01795-500	THE™ PEG Antibody, mAb, Mouse	Unconjugated	ELISA,WB,IHC	500 µg

Related Products

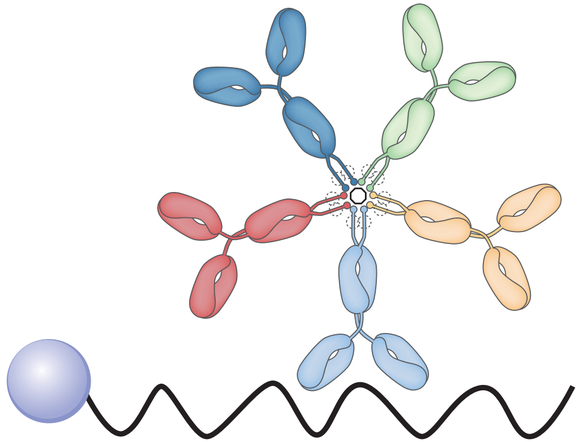
Cat.No	Product	Application	Size
A01508-40	THE™ cGMP Antibody, mAb, Mouse	ELISA	40 µg
A01508-100	THE™ cGMP Antibody, mAb, Mouse	ELISA	100 µg
A01509-40	THE™ cAMP Antibody, mAb, Mouse	ELISA	40 µg
A01509-100	THE™ cAMP Antibody, mAb, Mouse	ELISA	100 µg
A01509-200	THE™ cAMP Antibody, mAb, Mouse	ELISA	200 µg (5×40 µg)
A00728-40	Protein A Antibody, pAb, Chicken	ELISA,WB	40 µg
A00728-100	Protein A Antibody, pAb, Chicken	ELISA,WB	100 µg
A00728-200	Protein A Antibody, pAb, Chicken	ELISA,WB	200 µg (5×40 µg)
A00729-40	Protein A Antibody [HRP], pAb, Chicken	ELISA,WB	40 µg
A00729-100	Protein A Antibody [HRP], pAb, Chicken	ELISA,WB	100 µg
A00729-200	Protein A Antibody [HRP], pAb, Chicken	ELISA,WB	200 µg (5×40 µg)
A01778	Protein A Antibody, mAb, Mouse	ELISA,WB	100 µg
A01779	Protein A Antibody [Biotin], mAb, Mouse	ELISA,WB	100 µg
L00430	Protein A ELISA Kit	Detect Protein A residues	1 kit

Coming Soon

Cat.No	Product	Application
A01796-100	THE™ PEG Antibody [Biotin], mAb, Mouse	ELISA,WB
L00458	PEGylated Molecule Assay Kit	Detect PEG and PEGylated molecules
L00459	PEG Immunogenicity Assay Kit	Detect anti-PEG antibodies

860 Centennial Ave., Piscataway, NJ 08854, USA | Toll-Free: 1-877-436-7274 | Tel: 1-732-885-9188 | Fax: 1-732-210-0262 | Email: product@genscript.com

GenScript
Make Research Easy



THE™ PEG Antibody, mAb, Mouse

Superior Antibody with Leading Performance - A Member of GenScript THE™ ELITE Antibody
For Drug Discovery & Pharmacokinetic/Pharmacodynamic Assays

GenScript
Make Research Easy

THE™ PEG Antibody, mAb, Mouse

Superior Antibody with Leading Performance - A Member of GenScript THE™ ELITE Antibody
For Drug Discovery & Pharmacokinetic/Pharmacodynamic Assays

THE™ PEG Antibody For Drug Development

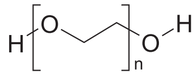
- Evaluate the PEGylation efficiency of a drug candidate
- Evaluate the pharmacokinetics/pharmacodynamics of a PEGylated drug candidate
- Immunogenecity assay of PEGylated drugs

Key Features and Benefits

- High sensitivity toward conjugated and free PEGs with wide molecular weight range – Better data
- High affinity and low dissociation constant Kd
- High specificity with superior signal-to-noise ratio – Low background
- Wide applications - Comprehensive product formats can be used for various researches
- Stable lyophilized form for at least three years with lot-to-lot consistency
- Outperform the most popular antibodies on the market – More reliable results

PEGylation and Drug Development

Polyethylene glycol (PEG) is a water soluble polyether compound with many applications from industrial manufacturing to medicine. PEGylation is the covalent coupling of non-toxic, hydrophilic polyethylene glycol (PEG) to the drug. It is an FDA-approved method for the delivery of protein drugs with PEG modification which can reduce their immunogenicity and antigenicity. The PEGylation of drugs decelerates renal excretion, improves stability toward proteolysis and increases drug's half life in blood. Accurate and sensitive quantification of PEG conjugates is important for PEG conjugated product development and pharmaceutical studies. Polyethylene glycol (PEG) antibody is a useful tool for the detection of PEGylated molecules.



Pegylation of drugs (proteins, antibodies, small molecules):

- Reduce immunogenicity: "mask" drugs from the immune system
- Minimize proteolytic cleavage
- Increase serum half-life
- Improve solubility

GenScript THE™ PEG Antibody, mAb, Mouse is produced from the hybridoma generated from the fusion of Sp2/0 myelomas and lymphocytes obtained from mouse immunized with PEG conjugated to KLH.

Applications

Working concentrations for specific applications should be empirically determined by the investigator. The appropriate concentrations may be affected by secondary antibody affinity, antigen concentration, the sensitivity of the detection methods, temperature, the length of incubation, and other factors. The suitability of this antibody for applications other than those listed below has not been determined.

ELISA Capture: 5-10 μg/ml
ELISA Detector: 0.1-1.0 μg/ml
Competitive ELISA: To be optimized per application
Double Antigen Bridging ELISA: To be optimized per application
Western Blot: 0.1-1.0 μg/ml
Immunohistochemistry: 10-15 μg/ml

Examples

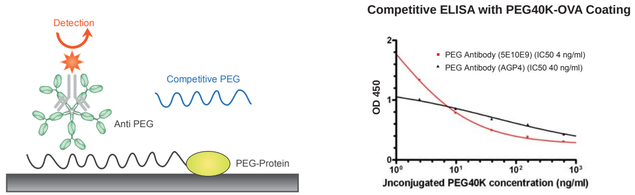


Fig 1. The half maximal inhibitory concentration (IC50) comparison of THE™ PEG Antibody, mAb, Mouse (Cat.No. A01795-100,Clone 5E10E9) and the commercial Mouse Anti-PEG mAb (Clone AGP4) in competitive ELISA.

The ELISA plate was coated by PEG40K-OVA, and unconjugated PEG40K was used for determining the IC50 of anti-PEG mAb. The test result showed GenScript PEG Antibody had lower IC50, therefore, better specificity and higher affinity to PEG were validated.

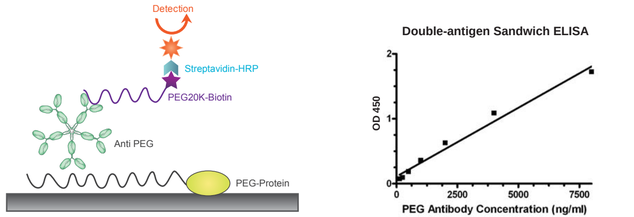


Fig 2. Double-antigen sandwich ELISA analysis of THE™ PEG Antibody, mAb, Mouse (Cat.No. A01795-100)

PEG Antibody was captured by PEG40K-OVA and detected by PEG20K-Biotin and Streptavidin-HRP conjugate.

The test result demonstrated GenScript PEG Antibody was suitable for Bridging ELISA application.

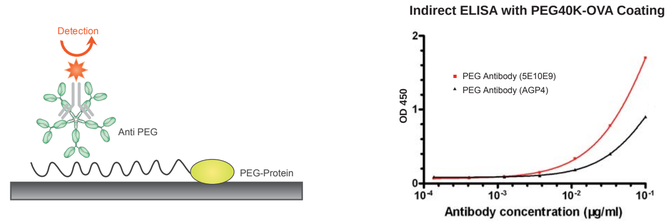


Fig 3. Sensitivity comparison of THE™ PEG Antibody, mAb, Mouse (Cat.No. A01795-100,Clone 5E10E9) and commercial Mouse Anti-PEG mAb (Clone AGP4) by indirect ELISA, with plate coated with PEG40K-OVA.

The test result showed GenScript PEG Antibody had better reactivity to PEG40K-OVA than the other commercial product.

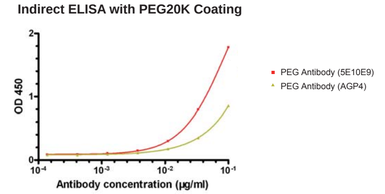


Fig 4. Sensitivity comparison of THE™ PEG Antibody, mAb, Mouse (Cat.No. A01795-100,Clone 5E10E9) and commercial Mouse Anti-PEG mAb (Clone AGP4) by indirect ELISA.

The test result showed GenScript PEG Antibody had better reactivity to PEG20K than the other commercial product.

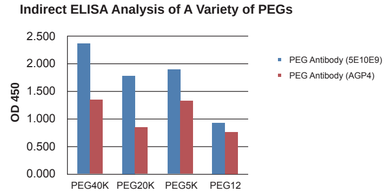


Fig 5. Sensitivity comparison of THE™ PEG Antibody, mAb, Mouse (Cat.No. A01795-100,Clone 5E10E9) and commercial Mouse Anti-PEG mAb (Clone AGP4) by indirect ELISA.

The test result showed GenScript PEG Antibody could detect PEG with different molecular weight and have better reactivity to PEG40K, PEG20K, PEG5K and PEG12 (Pierce, MES(PEG)12) than the other commercial product.