

Source

Dinitrophenyl (DNP) is a hapten that is not normally expressed in the target tissue. Therefore, anti-DNP antibody has no relevant specificity to a target antigen, and can be used as isotype control antibody to differentiate non-specific background signal from specific antibody signal in various in vitro and in vivo studies. Biotinylated Mouse IgG1 Isotype Control (mAb) was purified from HEK293 cell culture. It is the chemically Biotin labeled form of Mouse IgG1 Kappa Isotype Control (mAb) (Cat. No. DNP-M1).

Isotype

Mouse IgG1/kappa

Specificity

Specifically reacts with DNP (Dinitrophenyl) and DNP conjugated proteins.

Application

This antibody is suitable for use as a non-targeting isotype control in various in vitro and in vivo studies. It can also be used as a negative control in various applications such as ELISA, Western blot, immunofluorescence, immunohistochemistry, immunoprecipitation, and flow cytometry. Each laboratory should determine an optimum working titer for use in its particular application.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

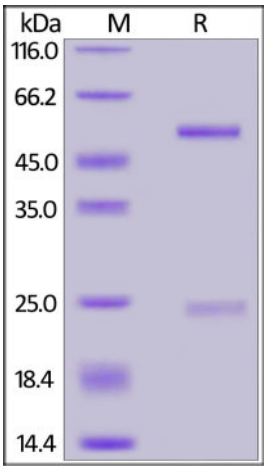
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

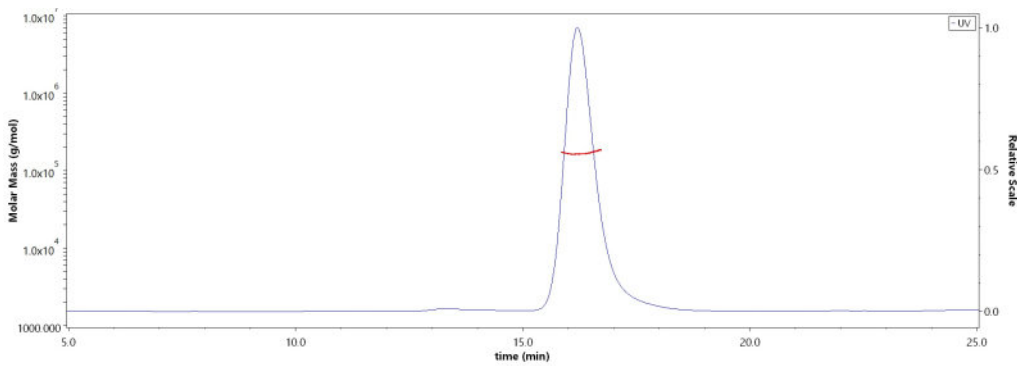
SDS-PAGE



Biotinylated Mouse IgG1 Isotype Control (mAb) on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

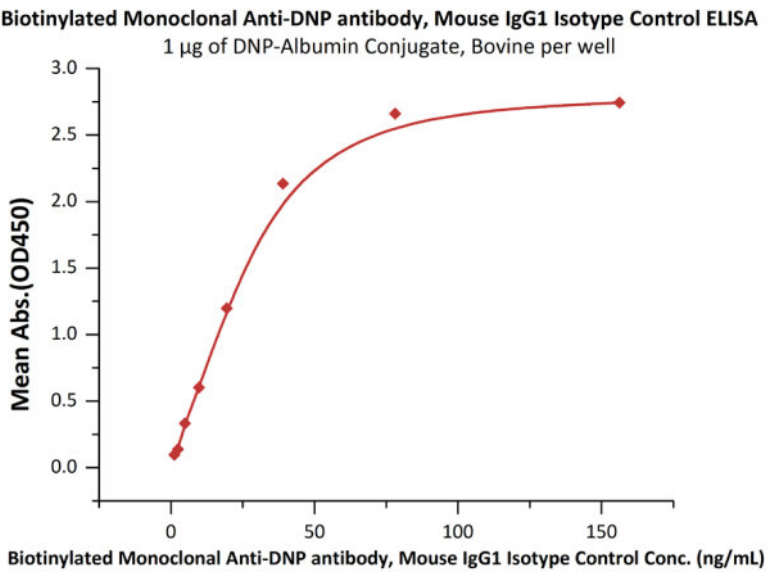
Bioactivity-Elisa

SEC-MALS



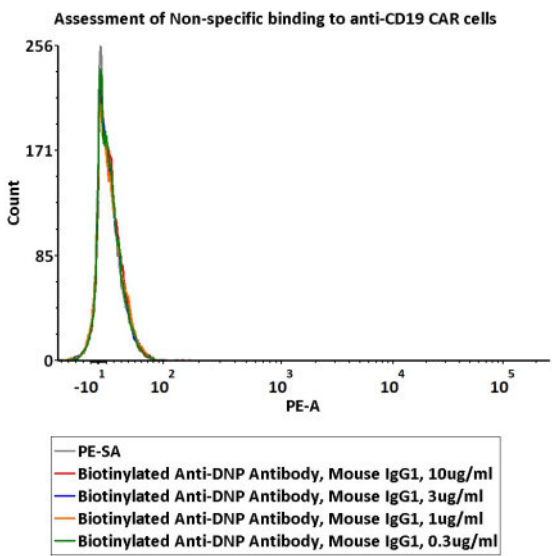
The purity of Biotinylated Mouse IgG1 Isotype Control (mAb) (Cat. No. DNP-BM1) is more than 95% and the molecular weight of this protein is around 135-170 kDa verified by SEC-MALS.

[Report](#)

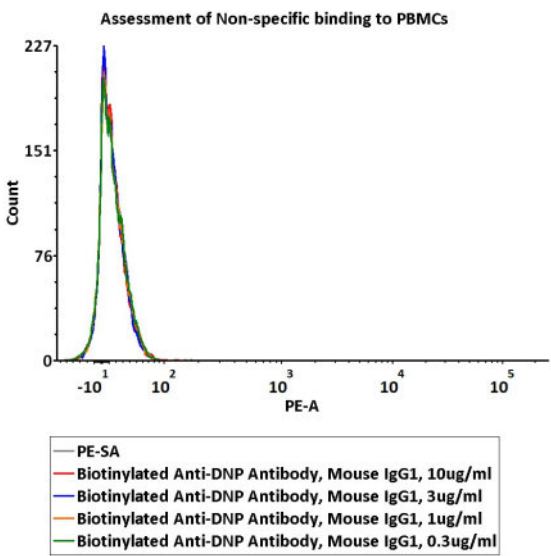


Immobilized DNP-Albumin Conjugate, Bovine at 10 µg/mL (100 µL/well) can bind Biotinylated Mouse IgG1 Isotype Control (mAb) (Cat. No. DNP-BM1) with a linear range of 1-39 ng/mL (QC tested).

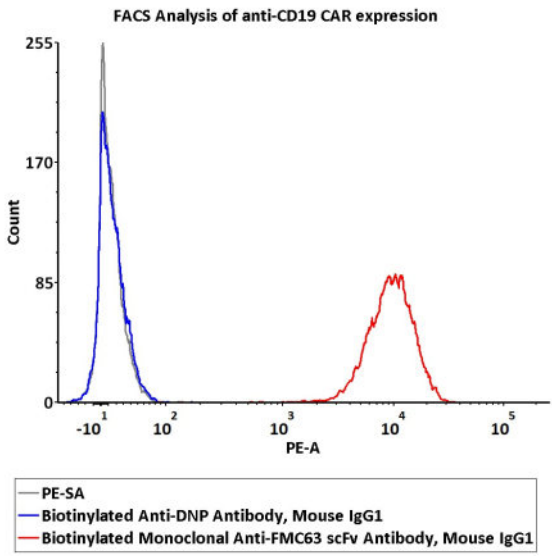
Bioactivity-FACS



2e5 of Anti-CD19 CAR-293 cells were stained with a series of concentrations of Biotinylated Mouse IgG1 Isotype Control (mAb) (Cat. No. DNP-BM1), washed and then followed by PE-SA and analyzed with FACS (QC tested).



5e5 of PBMCs were stained with a series of concentrations of Biotinylated Mouse IgG1 Isotype Control (mAb) (Cat. No. DNP-BM1), washed and then followed by PE-SA and analyzed with FACS (QC tested).



2e5 of Anti-CD19 CAR-293 cells were stained with 100 µL of 1 µg/mL of Biotinylated Mouse IgG1 Isotype Control (mAb) (Cat. No. DNP-BM1) and positive control respectively, washed and then followed by PE-SA and analyzed with FACS (Routinely tested).

Background

A hapten is a small molecule that can elicit an immune response only when conjugated with a large carrier such as a protein. Typical haptens include drugs, urushiol, quinone, steroids, etc. Peptides and non-protein antigens usually need conjugating to a carrier protein (such as BSA (bovine serum albumin) or KLH (keyhole limpet hemocyanin) to become good immunogens). Additionally, haptens should be administered with an adjuvant to ensure a high quality immune response. It is important that the hapten design (preserving greatly the chemical structure and spatial conformation of target compound), selection of the appropriate carrier protein and the conjugation method are key conditions for the desired specificity anti-hapten antibodies. We design anti-hapten antibodies based on the HaptenDB information.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.