

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. FITC-Labeled Human IgG1 Kappa Isotype Control (mAb) was purified from HEK293 cell culture. It is the FITC labeled form of Human IgG1 Kappa Isotype Control (mAb) (Cat. No. DNP-M2).

Isotype

Human IgG1/kappa

Specificity

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

Conjugate

FITC
Excitation source: 488 nm spectral line, argon-ion laser
Excitation Wavelength: 488 nm
Emission Wavelength: 535 nm

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with FITC using standard chemical labeling method. The residual FITC is removed by molecular sieve treatment during purification process.

Protein Ratio

The FITC to protein molar ratio is 1-3.

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.

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.

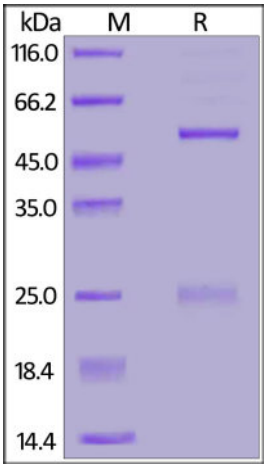
Storage

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 12 months under sterile conditions after reconstitution.

SDS-PAGE





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

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

