## Specificity

Specifically recognizes Doxorubicin.

## Source

Monoclonal Anti-Doxorubicin specific Antibody, Rabbit IgG (1M2C3) is a Rabbit monoclonal antibody recombinantly expressed from HEK293 cells.

## Clone

1M2C3

## Isotype

Rabbit IgG | Rabbit Kappa

## Conjugate

Unconjugated

## Immunogen

Doxorubicin-BSA

## Application

| Application | Recommended Usage |
|---|---|
| ELISA | 0.06-125 ng/mL |

## Purification

Protein A purified / Protein G purified

## 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

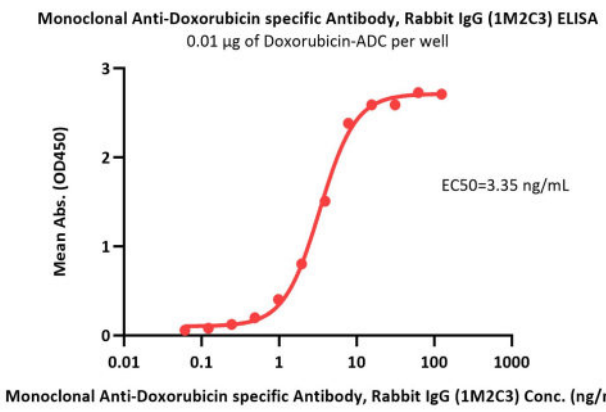
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

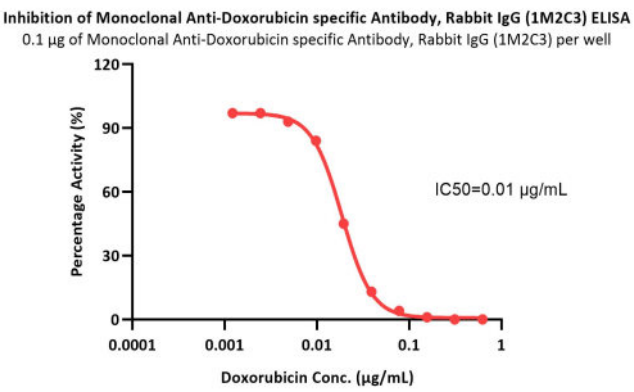
This product is stable after storage at:

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

## Bioactivity-ELISA

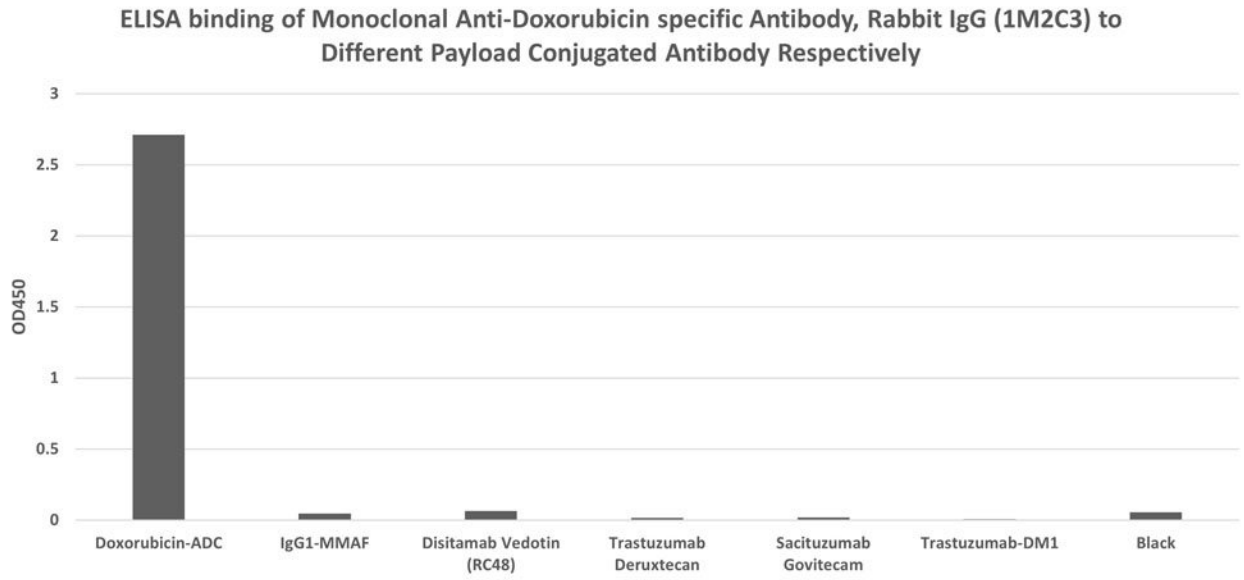



Immobilized Doxorubicin-ADC at 0.1 μg/mL (100 μL/well) can bind Monoclonal Anti-Doxorubicin specific Antibody, Rabbit IgG (1M2C3) (Cat. No. DON-MY2216) with a linear range of 0.06-8 ng/mL (QC tested).




Serial dilutions of Doxorubicin were added into Monoclonal Anti-Doxorubicin specific Antibody, Rabbit IgG (1M2C3) (Cat. No. DON-MY2216): Doxorubicin-ADC binding reactions. The half maximal inhibitory concentration (IC50) is 0.009186 μg/mL (Routinely tested).

## Cross Verification




ELISA binding of Monoclonal Anti-Doxorubicin specific Antibody, Rabbit IgG (1M2C3) (Cat. No. DON-MY2216) with Doxorubicin-ADC, Disitamab Vedotin (RC48), IgG1-MMAF, Trastuzumab Deruxtecan, Sacituzumab Govitecam and Trastuzumab-DM1 conjugated antibody respectively.

The coating antibody was Monoclonal Anti-Doxorubicin specific Antibody, Rabbit IgG (1M2C3) (Cat. No. DON-MY2216), used at 1 μg/mL concentration. The primary antibody were different payload conjugated antibodies, including Doxorubicin-ADC, Disitamab Vedotin (RC48), IgG1-MMAF, Trastuzumab Deruxtecan, Sacituzumab Govitecam and Trastuzumab-DM1 conjugated antibodies used at 0.25 μg/mL concentration. The secondary antibody was HRP conjugated Anti-Human-IgG-Fc Antibody (6F11C8), mAb (Acro, Cat. No. IGG-LY69) used at 1:10000 concentration.

Monoclonal Anti-Doxorubicin specific Antibody, Rabbit IgG (1M2C3) (Cat. No. DON-MY2216) is specific to Doxorubicin-ADC and has no cross-reactivity with IgG1-MMAF, Disitamab Vedotin (RC48), Trastuzumab Deruxtecan, Sacituzumab Govitecam and Trastuzumab-DM1 (Routinely tested).

## Background

Doxorubicin, a cytotoxic anthracycline antibiotic, is an anti-cancer chemotherapy agent. As the payload of ADC drugs, Doxorubicin can act directly on DNA, insert into the double helix strands of DNA, cause the latter to unwind, change the template properties of DNA, and inhibit DNA polymerase, thereby inhibiting the synthesis of both DNA and RNA. Anti-Doxorubicin antibody is a rabbit monoclonal antibody specifically reacts with Doxorubicin without other payloads, which is more sensitive than mouse antibody. The anti-Doxorubicin antibody is a useful reagent in PK assay to determine conjugated antibodies.