

# In vivo Grade Recombinant Anti-DNP Rat IgG2a Isotype Control Antibody

Catalog No.: YR0271

## Basic Information

### Molecular Weight

150 kDa

### Endotoxin

<1EU/mg (<0.001EU/μg) Determined by LAL gel clotting assay

### Sterility

0.2 μm filtration

### Aggregation

<5% Determined by SECP

### Purity

>95% Determined by SDS-PAGE

## Background

Because Dinitrophenyl (DNP) is a hapten and not found endogenously in animal and plant tissues, the anti-DNP monoclonal antibody in nature is suitable for use as an isotype-matched control antibody to estimate the degree of non-specific binding by an antigen-specific antibody. The recombinant mouse IgG1 kappa isotype control (clone number: DNP.m1) and mutants (natural and engineered mIgG1 isotype controls) are useful for in vitro and in vivo studies from ELISA, Western blot (WB), to cell-based assay to animal model study. The isotypes of mouse IgG antibody reagents used in scientific research and clinical diagnostics are mainly mouse IgG1 kappa. Mouse IgG1 antibodies and engineered mutants are also used in therapeutic drug discovery. Mouse IgG1 antibodies are more like human IgG4 antibodies than human IgG1 antibodies, which behave more like mouse IgG2a or IgG2c antibodies. Many antibody drugs especially those targeting immune checkpoint proteins use the human IgG4 constant regions. As an ideal recombinant mouse IgG1 isotype control, the recombinant anti-DNP mIgG1 kappa isotype control has low or no specific binding to any mouse sample, and has completely mouse variable regions and the mouse IgG1 kappa constant regions. The anti-DNP mouse IgG1 kappa isotype control and mutants can be used in ELISA, WB, IHC, the cell-based assay or animal model as the antibody negative control.

## Reported Applications

an isotype-matched negative control used in ELISA, Western Blot (WB), Flow Cytometry (Flow), Immuno precipitation (IP), Immunohistochemistry (Paraffin) (IHC (P)), Immunohistochemistry (Frozen) (IHC (F)), and in vivo animal model research

## Immunogen Information

### Clone

DNP.r2a.

### Isotype

### Immunogen

DNP

### Recommended Isotype Control(s)

### Recommended Dilution Buffer

1×PBS pH 7.0

## Contact

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## Product Information

### Production

Purified from cell culture supernatant in an animal-free facility

### Purification

Protein A or G purification

### Storage

2 - 8°C for up to 4 weeks and -80°C for long term storage (Avoid repeated freezing and thawing)