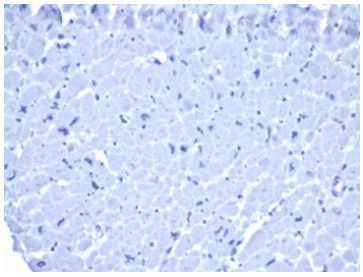
Mouse IgG1 Isotype Control Antibody [clone ICG1/1331] (V5377)

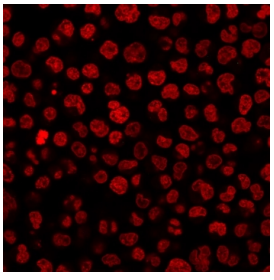
Catalog No.	Formulation	Size
V5377-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5377-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5377SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

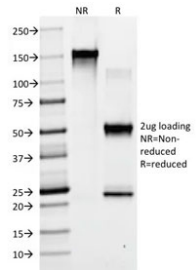
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	ICG1/1331
Purity	Protein A/G affinity
Applications	Flow Cytometry : application dependent Immunofluorescence : application dependent Immunohistochemistry (FFPE) : application dependent Western Blot : application dependent
Limitations	This mouse IgG1 antibody is available for research use only.



No staining was observed: IHC staining of FFPE human heart tissue with mouse IgG1 antibody (clone ICG1/ 1331). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



No staining was observed: Immunofluorescent staining of PFA-fixed human Raji cells with mouse IgG1 antibody (clone ICG1/ 1331, green) and Reddot nuclear stain (red).



SDS-PAGE analysis of purified, BSA-free mouse IgG1 antibody (clone ICG1/ 1331) as confirmation of integrity and purity.

Description

Mouse IgG1 Isotype Control antibody is an essential reagent used to evaluate non-specific staining and background activity in immunological assays. Isotype controls are designed to match the host species and immunoglobulin subclass of test antibodies, but their variable regions do not bind to any relevant antigen in the system being studied. This ensures that any signal detected reflects assay noise, Fc receptor interactions, or non-specific binding rather than genuine antigen recognition. Because accurate interpretation is the cornerstone of reliable science, Mouse IgG1 Isotype Control antibody remains fundamental to immunology, oncology, and pathology research.

IgG1 is one of the major immunoglobulin subclasses in mice and is produced by B cells following class-switch recombination. Its basic structure includes two heavy chains and two light chains, creating a Y-shaped molecule with a variable region for antigen recognition and a constant region that interacts with Fc receptors and complement. In the context of an isotype control antibody, the variable region is directed toward irrelevant antigens, ensuring it will not bind specific targets within the experimental system. This makes it ideal for distinguishing true antigen-driven signals from background activity.

The Mouse IgG1 Isotype Control antibody clone ICG1/1331 provides specific and reproducible performance in applications such as flow cytometry, immunohistochemistry, and ELISA. Clone ICG1/1331 has been widely used in peer-reviewed studies to confirm staining specificity, optimize gating strategies, and establish baseline thresholds for interpretation. Its consistent use across multiple disciplines has demonstrated the importance of isotype controls in maintaining rigorous standards in experimental biology.

Research employing clone ICG1/1331 has illustrated how isotype controls strengthen confidence in results. In flow cytometry, they help determine whether observed staining arises from Fc receptor binding or from true antigen-antibody interactions. In immunohistochemistry, they highlight background staining caused by tissue processing, endogenous proteins, or non-specific antibody attachment. In ELISA and related immunoassays, they provide a necessary baseline for distinguishing authentic binding events from assay-related noise. By using this control, investigators can more accurately interpret data and ensure reproducibility across experiments.

Beyond basic immunology, isotype controls are equally important in translational and clinical research. Studies evaluating immune checkpoint markers, tumor-infiltrating lymphocytes, and biomarker expression depend on precise antibody validation. Without appropriate controls, false-positive signals may confound results and hinder scientific progress. Clone ICG1/1331 allows researchers to confidently separate true biological findings from technical artifacts, making it an indispensable component of rigorous study design.

NSJ Bioreagents provides this Mouse IgG1 Isotype Control antibody to support researchers in immunology, cancer biology, and diagnostic assay development. Alternate names include murine IgG1 isotype control antibody, mouse immunoglobulin G1 control antibody, IgG1 subclass control antibody, negative control IgG1 antibody, and monoclonal antibody isotype control antibody.

Application Notes

Optimal dilution of the mouse IgG1 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human IG1R protein was used as the immunogen for the mouse IgG1 antibody.

Storage

Aliquot the mouse IgG1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.