dsDNA Antibody / Double Stranded DNA [clone 121-3] (V3075)

Catalog No.	Formulation	Size
V3075-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3075-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3075SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3075IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

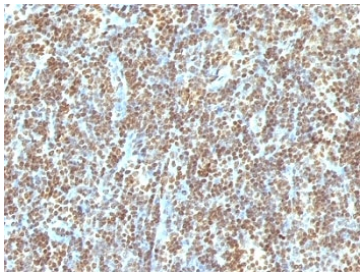
Citations (2)

Bulk quote request

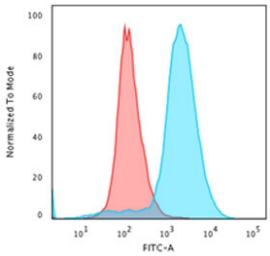
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG3, kappa
Clone Name	121-3
Purity	Protein G affinity chromatography
UniProt	Not Known
Localization	Nuclear
Applications	Flow cytometry: 1-2ug/million cells Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This dsDNA antibody is available for research use only.



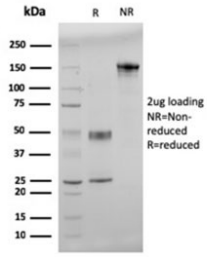
IHC staining of FFPE human colon carcinoma with dsDNA antibody (clone 121-3). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



IHC staining of FFPE human tonsil with dsDNA antibody (clone 121-3). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



Flow cytometry testing of fixed and permeabilized human Jurkat cells with dsDNA antibody (clone 121-3); Red=isotype control, Blue= dsDNA antibody.



SDS-PAGE analysis of purified, BSA-free dsDNA antibody (clone 121-3) as confirmation of integrity and purity.

Description

dsDNA antibody clone 121-3 is a monoclonal antibody that detects double-stranded DNA, a critical biomolecule that encodes genetic information in all living cells. Antibodies against dsDNA are particularly important in autoimmune disease research, as they represent hallmark autoantibodies in systemic lupus erythematosus. This reagent is also widely used in molecular biology to evaluate DNA integrity and monitor chromatin-related processes. NSJ Bioreagents supplies this antibody for immunology, autoimmunity, and cell biology research.

The antibody produces strong nuclear staining in cells, reflecting the distribution of chromosomal DNA. In immunology, dsDNA detection supports research into autoimmune pathogenesis. Anti-dsDNA antibodies are a hallmark of systemic lupus erythematosus and are used to monitor disease activity. Clone 121-3 provides researchers with a consistent tool to evaluate DNA autoantigen recognition and immune system dysregulation.

In cell biology, dsDNA antibody clone 121-3 has been employed to monitor DNA fragmentation during apoptosis. Detection of fragmented chromosomal DNA provides insight into programmed cell death pathways and their regulation in health and disease. The antibody has also been used in models of DNA damage repair, enabling exploration of genomic stability and checkpoint activation.

In oncology, dsDNA antibodies are applied to assess DNA damage in cancer cells subjected to genotoxic stress. Monitoring DNA integrity provides valuable information about tumor sensitivity to radiation and chemotherapy. This antibody supports translational studies that aim to optimize therapeutic strategies by linking DNA damage with treatment response.

In molecular biology, the antibody has been used in studies of DNA organization, chromatin remodeling, and replication. Its specificity for double-stranded DNA provides reliable detection of genomic material in diverse experimental contexts.

Validated in multiple systems, the antibody consistently produces specific nuclear staining with minimal background. Alternate names include double-stranded DNA antibody, lupus biomarker antibody, and chromosomal DNA antibody.

Application Notes

Optimal dilution of the dsDNA antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Nuclei of Burkitt's cells were used as the immunogen for the dsDNA antibody.

Storage

Store the dsDNA antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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