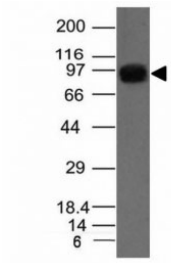
Nucleolin Antibody for Flow Cytometry / NCL Antibody (FACS) [clone NCL/902] (V2755)

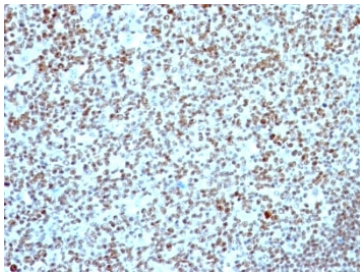
Catalog No.	Formulation	Size
V2755-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2755-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2755SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2755IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

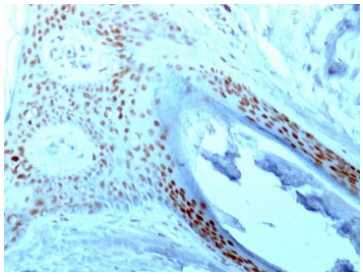
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	NCL/902
Purity	Protein G affinity chromatography
UniProt	P19338
Localization	Nucleoli
Applications	1-2ug/million cells1-2ug/ml1-2ug/ml1-2ug/ml for 30 min at RT
Limitations	This Nucleolin antibody is available for research use only.



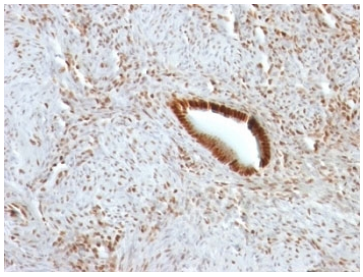
Western blot of A431 cell lysate using Nucleolin antibody.



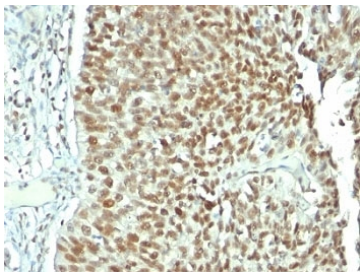
IHC: Formalin-fixed, paraffin-embedded human tonsil stained with Nucleolin antibody.



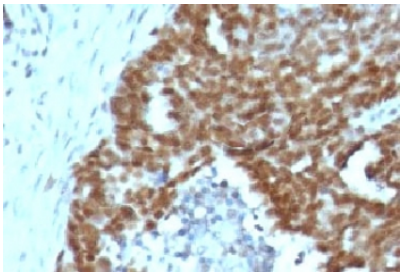
IHC: Formalin-fixed, paraffin-embedded human skin stained with Nucleolin antibody.



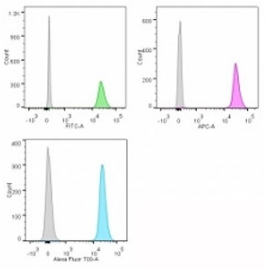
IHC: Formalin-fixed, paraffin-embedded human uterus stained with Nucleolin antibody.



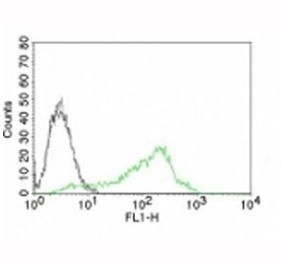
IHC: Formalin-fixed, paraffin-embedded human bladder carcinoma stained with Nucleolin antibody.



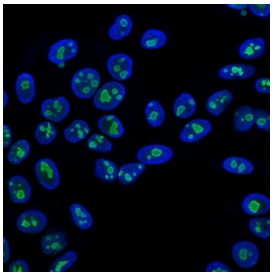
IHC: Formalin-fixed, paraffin-embedded human ovarian carcinoma stained with Nucleolin antibody.



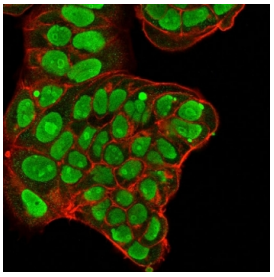
Nucleolin Antibody for Flow Cytometry flow cytometry analysis of human Jurkat cells. Human Jurkat cells were stained with Nucleolin Antibody for Flow Cytometry (clone NCL/902). Fluorescent signals are shown for FITC-labeled (green), APC-labeled (purple), and AF700-labeled (turquoise) antibody compared with the isotype control (gray), demonstrating detection of intracellular Nucleolin / NCL by flow cytometry following fixation and permeabilization.



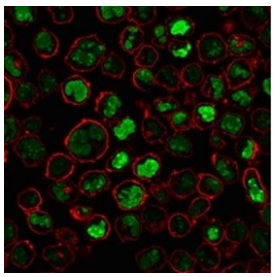
Nucleolin Antibody for Flow Cytometry flow cytometry analysis of human 293T cells. Human 293T cells were stained with AF488-labeled Nucleolin Antibody for Flow Cytometry (clone NCL/902). The fluorescence histogram (green) shows positive staining compared with cells alone (black) and the isotype control (gray), demonstrating detection of intracellular Nucleolin / NCL by flow cytometry following fixation and permeabilization.



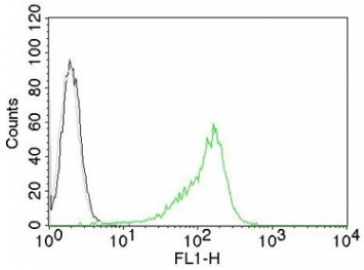
Nucleolin Antibody immunofluorescence analysis of human HeLa cells. Permeabilized human HeLa cells stained with AF488-labeled Nucleolin Antibody for Flow Cytometry (clone NCL/902). Green fluorescence highlights nucleolin-positive nucleoli within the nuclei, consistent with the expected nuclear and nucleolar localization of Nucleolin / NCL, while DAPI (blue) stains cell nuclei.



Immunofluorescent staining of PFA-fixed human MCF7 cells with Nucleolin antibody (green, clone NCL/902) and Phalloidin (red).



Immunofluorescent staining of PFA-fixed human K562 cells with Nucleolin antibody (green, clone NCL/902) and Phalloidin (red).



Nucleolin Antibody for Flow Cytometry flow cytometry analysis of human 293T cells. Human 293T cells were stained with AF488-labeled Nucleolin Antibody for Flow Cytometry (clone NCL/902). The fluorescence histogram (green) shows positive staining compared with cells alone (black) and the isotype control (gray), demonstrating detection of intracellular Nucleolin / NCL by flow cytometry following fixation and permeabilization.

Description

Nucleolin (NCL) is a multifunctional nucleolar phosphoprotein that plays a central role in ribosome biogenesis, ribosomal RNA transcription, and nucleolar organization. Encoded by the NCL gene on chromosome 2q37, nucleolin is one of the most abundant proteins within the nucleolus of proliferating cells and participates in ribosomal RNA synthesis, RNA processing, and ribonucleoprotein complex assembly. The Nucleolin Antibody for Flow Cytometry clone NCL/902 is a mouse monoclonal reagent developed for analysis of nucleolin expression using flow cytometry and fluorescence-activated cell sorting (FACS) assays.

Flow cytometry enables rapid quantitative analysis of protein expression across large populations of individual cells.

When used as an NCL Antibody (FACS), nucleolin antibodies allow researchers to measure intracellular NCL levels, identify proliferating cell populations, and evaluate changes in nucleolar protein expression during cellular activation or transformation. Because nucleolin is primarily localized within the nucleus and nucleolus, detection by flow cytometry typically involves fixation and permeabilization steps that allow antibodies to access intracellular proteins prior to FACS analysis. Fluorescently labeled antibodies or fluorophore-conjugated secondary reagents then allow nucleolin-positive cells to be detected and quantified by fluorescence intensity during flow cytometric analysis.

Because nucleolin is highly enriched within nucleoli and displays a characteristic nuclear localization pattern, antibodies targeting NCL are also widely used in complementary experimental approaches including immunofluorescence microscopy, immunohistochemistry staining of tissue sections, and western blot analysis of nucleolin expression. Immunofluorescence can reveal the punctate nucleolar distribution of nucleolin within cells, while immunohistochemistry allows visualization of nuclear nucleolin expression in formalin-fixed tissue samples. Western blot experiments further support detection of nucleolin protein levels in cell lysates. Incorporation of these complementary techniques alongside flow cytometry provides a broader understanding of nucleolin regulation across different biological systems.

Nucleolin contains several structural domains that enable its diverse biological functions. The N-terminal acidic region interacts with chromatin and ribosomal RNA transcription complexes. Four central RNA recognition motifs allow nucleolin to bind ribosomal RNA and other RNA molecules, while the glycine- and arginine-rich C-terminal region mediates interactions with nucleic acids and nucleolar proteins. Through these domains nucleolin coordinates ribosomal RNA synthesis, processing, and ribonucleoprotein assembly, processes essential for ribosome production and cellular growth.

NCL antibody reagents are commonly described in the literature using several established synonyms for the protein. NCL antibody, also known as nucleolin antibody, C23 nucleolin antibody, and nucleolar protein nucleolin antibody, recognizes a nucleolar phosphoprotein historically referred to as nucleolin nucleolar phosphoprotein. The designation C23 originates from early nucleolar protein fractionation studies that identified nucleolin as a prominent nucleolar phosphoprotein associated with ribosomal transcription complexes. These alternative names remain widely used in research focused on nucleolar biology and ribosome synthesis.

Nucleolin expression is closely associated with cellular proliferation and nucleolar activity. Elevated levels of NCL are frequently observed in rapidly dividing cells and many tumor types where increased ribosome production supports enhanced protein synthesis. Because flow cytometry allows quantitative analysis of fluorescence intensity in individual cells, a Nucleolin Antibody for Flow Cytometry such as clone NCL/902 provides a valuable tool for examining nucleolin expression patterns, analyzing heterogeneous cell populations, and studying nucleolar protein regulation in cancer biology and cell growth studies.

Application Notes

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

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min
2. 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

Recombinant human protein was used as the immunogen for the Nucleolin antibody.

Storage

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

Alternate Names

NCL antibody, nucleolin antibody, C23 nucleolin antibody, nucleolar protein nucleolin antibody, nucleolin nucleolar phosphoprotein antibody

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