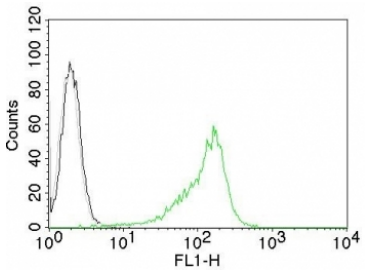
Nucleolin Antibody CF488 Conjugate for IF / NCL Fluorescent Antibody [clone NCL/902] (V2755CF488)

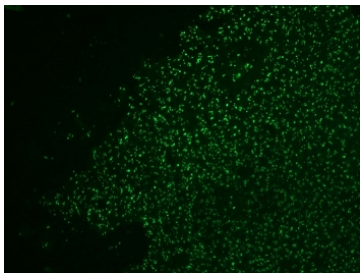
Catalog No.	Formulation	Size
V2755CF488-100T	500 ul at 0.1 mg/ml with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 Tests

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	CF488 Conjugate
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	NCL/902
Purity	Protein G affinity chromatography
UniProt	P19338
Localization	Nuclear
Applications	Flow cytometry: 5ul per test per one 10^6 cells in 0.1ml or 5ul per 100ul of whole blood Immunofluorescence: 1-2ug/ml
Limitations	This Nucleolin antibody is available for research use only.



Nucleolin Antibody CF488 Conjugate flow cytometry analysis of human 293T cells. Human 293T cells were stained with Nucleolin Antibody CF488 Conjugate (clone NCL/902). The fluorescent signal (green histogram) shows positive staining compared with the isotype control (gray histogram), demonstrating detection of Nucleolin / NCL. Direct CF488 labeling enables fluorescence detection without a secondary antibody during flow cytometry analysis.



Nucleolin Antibody CF488 Conjugate for IF. Immunofluorescence analysis of human colon carcinoma tissue. Immunofluorescent staining of human colon carcinoma with Nucleolin Antibody CF488 Conjugate (clone NCL/902). Direct CF488 labeling produces bright green fluorescence highlighting nuclei and nucleolar compartments consistent with the expected nuclear localization of Nucleolin / NCL in tumor cells.

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 present within the nucleolus of proliferating cells. The protein participates in transcription and processing of ribosomal RNA, stabilization of specific messenger RNAs, and assembly of ribonucleoprotein complexes required for ribosome formation. The Nucleolin Antibody CF488 Conjugate for IF is a mouse monoclonal reagent designed for direct fluorescent detection of nucleolin in cells and tissues using immunofluorescence microscopy.

This antibody is directly labeled with the CF488 fluorophore, allowing immediate fluorescent visualization of Nucleolin / NCL without the need for secondary antibodies. Direct conjugation simplifies immunofluorescence workflows by reducing staining steps and minimizing background signal caused by secondary antibody cross-reactivity. CF488 produces bright green fluorescence compatible with standard FITC filter sets and is commonly used in confocal and widefield fluorescence microscopy. Because nucleolin is highly enriched within nucleoli, an NCL Fluorescent Antibody provides a convenient tool for visualizing nucleolar compartments and studying nucleolar organization in cultured cells and tissue sections.

Nucleolin contains several structural domains that support its diverse biological functions. The N-terminal acidic domain interacts with chromatin and ribosomal RNA transcription machinery. Four central RNA recognition motifs enable nucleolin to bind ribosomal RNA and other RNA molecules, while the glycine- and arginine-rich C-terminal region facilitates 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 name C23 originates from early nucleolar protein fractionation studies in which nucleolin was identified as a major nucleolar phosphoprotein associated with ribosomal transcription complexes. These alternative names remain widely used in studies of nucleolar biology and ribosome synthesis.

Nucleolin is dynamically distributed within cells and can shuttle between the nucleolus, nucleoplasm, and cytoplasm depending on cellular conditions. In proliferating cells nucleolin levels are often elevated to support increased ribosome production and protein synthesis. Increased expression of nucleolin is frequently observed in tumor cells where the protein contributes to transcriptional regulation, RNA stabilization, and chromatin remodeling. In certain contexts nucleolin has also been reported at the cell surface where it may interact with extracellular ligands involved in growth signaling pathways.

Because nucleolin displays a characteristic nucleolar fluorescence pattern and strong nuclear localization, antibodies targeting NCL are widely used as markers of nucleolar compartments in imaging experiments. A directly labeled Nucleolin Antibody CF488 Conjugate for IF such as clone NCL/902 enables rapid fluorescent detection of nucleolin distribution, supporting studies of nucleolar structure, ribosome biogenesis, and nucleolin redistribution during cellular stress or cell cycle progression.

For an alternative monoclonal antibody targeting this nucleolar protein, see our Nucleolin Antibody NCL/902, validated for western blot, immunohistochemistry, immunofluorescence, and flow cytometry.

Application Notes

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

Storage

Store the Nucleolin antibody at 2-8oC, protected from light.

Alternate Names

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

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