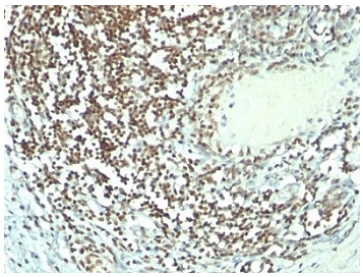
Nucleolin Antibody for FACS / NCL Flow Cytometry Antibody [clone 364-5 + NCL/902] (V2758)

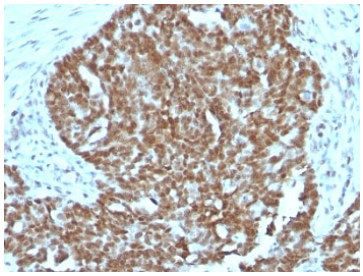
Catalog No.	Formulation	Size
V2758-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2758-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2758SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2758IHC-7ML	Prediluted 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

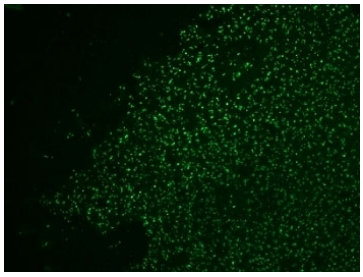
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	364-5 + NCL/902
Purity	Protein G affinity chromatography
UniProt	P19338
Localization	Nucleoli
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 1-2ug/ml Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Nucleolin antibody cocktail is available for research use only.



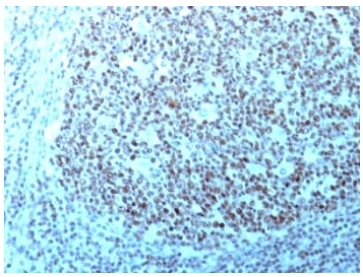
Nucleolin Antibody immunohistochemistry analysis of human bladder carcinoma. Formalin-fixed, paraffin-embedded human bladder carcinoma stained with Nucleolin Antibody (clones 364-5 and NCL/902). HRP-DAB brown chromogenic staining highlights nuclei of tumor epithelial cells, consistent with the expected nuclear and nucleolar localization of Nucleolin / NCL in proliferating carcinoma cells.



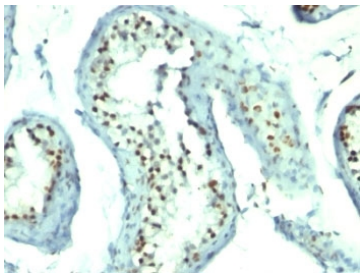
IHC: Formalin-fixed, paraffin-embedded human ovarian carcinoma stained with Nucleolin antibody.



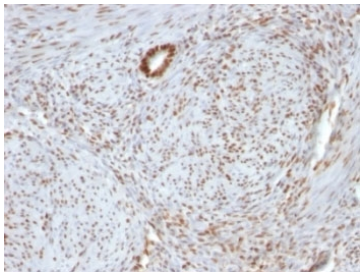
IHC: Formalin-fixed, paraffin-embedded human colon carcinoma stained with AF488 Conjugate of Nucleolin antibody.



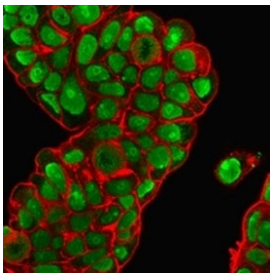
Nucleolin Antibody immunohistochemistry analysis of human tonsil. Formalin-fixed, paraffin-embedded human tonsil stained with Nucleolin Antibody. HRP-DAB brown chromogenic staining highlights nuclei of lymphoid cells within tonsillar tissue, consistent with the expected nuclear and nucleolar localization of Nucleolin / NCL in proliferating immune cell populations.



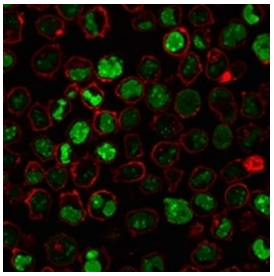
IHC: Formalin-fixed, paraffin-embedded human testicular carcinoma stained with Nucleolin antibody.



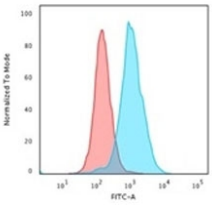
IHC: Formalin-fixed, paraffin-embedded human uterus stained with Nucleolin antibody.



Immunofluorescent staining of PFA-fixed human MCF7 cells with Nucleolin antibody (green, clones 364-5 + NCL/902) and Phalloidin (red).



Nucleolin Antibody immunofluorescence analysis of human K562 cells. Immunofluorescent staining of PFA-fixed human K562 cells with Nucleolin Antibody (clones 364-5 and NCL/902). Green fluorescence highlights nucleolin-positive nucleoli within the nuclei, consistent with the expected nuclear and nucleolar localization of Nucleolin / NCL, while Phalloidin (red) labels filamentous actin outlining the cell cytoskeleton and cell boundaries.



Nucleolin Antibody for FACS. Flow cytometry analysis of human K562 cells. PFA-fixed human K562 cells were stained with Nucleolin Antibody for FACS (clones 364-5 and NCL/902). The fluorescence histogram (blue) shows positive staining compared with the isotype control (red), 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. The protein is encoded by the NCL gene on chromosome 2q37 and is highly abundant in the nucleolus of proliferating cells where ribosome production is actively occurring. Nucleolin participates in transcription of ribosomal RNA genes, processing of precursor rRNA transcripts, and assembly of ribonucleoprotein complexes required for ribosome formation. The Nucleolin Antibody for FACS is a mouse monoclonal antibody reagent developed for detection of nucleolin expression in cells using flow cytometry, enabling quantitative analysis of NCL levels across cell populations.

Flow cytometry provides a powerful approach for analyzing intracellular protein expression in thousands to millions of individual cells within a sample. When used as an NCL Flow Cytometry Antibody, nucleolin antibodies allow researchers to evaluate nuclear protein expression patterns, identify proliferative cell populations, and measure changes in nucleolin levels during cellular activation or transformation. Cells are typically fixed and permeabilized prior to staining so that antibodies can access nucleolin within the nucleus and nucleolus. Following staining with a fluorophore-conjugated antibody or fluorescent secondary antibody, nucleolin-positive cells can be detected and quantified by fluorescence intensity during flow cytometric analysis.

Nucleolin contains several structural domains that support its diverse biological functions. The N-terminal acidic domain 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 facilitates interactions with nucleic acids and nucleolar proteins. Through these domains nucleolin coordinates ribosomal RNA synthesis, RNA processing, and ribonucleoprotein assembly. Because nucleolin expression correlates with ribosome production and cellular proliferation, flow cytometric detection of NCL is frequently used in studies examining cell growth, tumor biology, and nucleolar stress responses.

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 major nucleolar phosphoprotein historically described as nucleolin nucleolar phosphoprotein. The designation C23 originates from early nucleolar protein fractionation experiments in which nucleolin was identified 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 is dynamically distributed within cells and can shuttle between the nucleolus, nucleoplasm, cytoplasm, and in some cases the cell surface depending on cellular conditions. In proliferating cells nucleolin expression is often elevated to support increased ribosome production and protein synthesis. Elevated levels of nucleolin are frequently observed in tumor cells where the protein contributes to regulation of transcription, RNA stabilization, and chromatin remodeling. Because flow cytometry can measure fluorescence intensity in individual cells, an NCL Flow Cytometry Antibody provides a useful tool for examining nucleolin expression across heterogeneous cell populations.

Antibodies targeting nucleolin are therefore valuable reagents for cellular analysis workflows including intracellular staining and multiparametric flow cytometry experiments. A Nucleolin Antibody for FACS such as clones 364-5 and NCL/902 can support analysis of nucleolin expression in cultured cells, tumor samples, and immune cell populations, enabling researchers to evaluate nuclear protein distribution and proliferation-associated changes using flow cytometric detection.

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 for FACS should be determined by the researcher.

1. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10mM Citrate buffer, pH 6.0, 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

SUDHL1 cell nuclear lysate (364-5) and recombinant human protein (NCL/902) were used as the immunogen for the Nucleolin antibody cocktail.

Storage

Store the Nucleolin antibody cocktail 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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