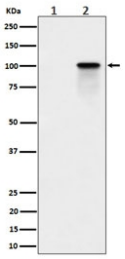
# Phospho-Nucleolin T84 Antibody 29N17 / NCL pThr84 Monoclonal Antibody [clone 29N17] (RQ8681)

| Catalog No. | Formulation | Size |
|---|---|---|
| RQ8681 | Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA | 100 ul |

Recombinant RABBIT MONOCLONAL

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Name** | 29N17 |
| **Purity** | Affinity chromatography |
| **UniProt** | P19338 |
| **Applications** | Western blot: 1:500-1:2000 |
| **Limitations** | This Phospho-Nucleolin T84 Antibody 29N17 / NCL pThr84 Monoclonal Antibody is available for research use only. |




Phospho-Nucleolin T84 Antibody 29N17 Western Blot Analysis of Untreated and Calyculin A-Treated K562 Cells. Western blot analysis of human K562 cell lysates using NCL pThr84 Monoclonal Antibody clone 29N17. Lane 1 contains untreated lysate, while lane 2 contains lysate from cells treated with calyculin A, a serine/threonine protein phosphatase inhibitor. An immunoreactive band at approximately 100 kDa is detected in the treated sample but is not clearly detected in the untreated sample, supporting phosphorylation-dependent recognition of nucleolin. The observed migration is consistent with the commonly reported apparent molecular weight of nucleolin, which is approximately 100-110 kDa despite a calculated molecular weight of approximately 77 kDa.

## Description

Phospho-Nucleolin T84 Antibody 29N17 / NCL pThr84 Monoclonal Antibody targets nucleolin (NCL) phosphorylated at threonine 84. Nucleolin, also known as C23, is an abundant nucleolar phosphoprotein involved in ribosome biogenesis,

RNA metabolism, chromatin organization, and cell proliferation. It is primarily concentrated within nucleoli, where it associates with ribosomal DNA, precursor ribosomal RNA, and developing ribonucleoprotein complexes. Nucleolin also undergoes regulated redistribution between the nucleolus, nucleoplasm, and cytoplasm, reflecting its participation in cellular processes beyond ribosome production.

Nucleolin contains an acidic N-terminal domain, four central RNA recognition motifs, and a glycine- and arginine-rich C-terminal region. The N-terminal domain contains multiple phosphorylation sites that contribute to regulation of nucleolin during cell cycle progression. Casein kinase 2 (CK2) predominantly phosphorylates serine residues during interphase, while cyclin-dependent kinase 1 (CDK1) phosphorylates threonine residues within repeated TPXKK motifs during mitosis. These phosphorylation events are associated with changes in nucleolin localization, chromatin interactions, and nucleolar organization.

Threonine 84 lies within the N-terminal region containing several CDK-associated phosphorylation sites, including Thr76, Thr92, and Thr99. Phosphorylation of these sites has been linked to the dynamic reorganization of nucleolar components during cell division. As cells enter mitosis, the nucleolus undergoes disassembly, accompanied by changes in nucleolin phosphorylation and its association with chromosomal structures. Although phosphorylation of the N-terminal threonine-rich region is well documented, the independent functional contribution of Thr84 remains less extensively characterized than the collective effects of these modifications. Consequently, changes in phosphorylation at this residue should be interpreted within the broader context of nucleolin regulation.

Nucleolin phosphorylation is also relevant to cellular growth, stress responses, and cancer-associated signaling. Elevated nucleolin expression is frequently observed in proliferating cells, and alterations in its phosphorylation state may influence interactions with nucleic acids and regulatory proteins. Investigating individual phosphorylation sites can help distinguish changes in nucleolin modification from changes in total protein abundance. Phospho-Nucleolin T84 Antibody 29N17 provides a means of examining this specific phosphorylation event in studies of cell cycle signaling, nucleolar organization, and the regulation of ribosome biogenesis.

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 Phospho-Nucleolin T84 Antibody 29N17 / NCL pThr84 Monoclonal Antibody should be determined by the researcher.

## Immunogen

A synthetic peptide specific to the region of human Nucleolin protein surrounding phosphorylated threonine 84 was used as the immunogen for the Phospho-Nucleolin antibody (pT84).

## Storage

Store the Phospho-Nucleolin antibody at -20oC.

## Alternate Names

Phospho-Nucleolin Thr84 antibody, Phosphorylated Nucleolin T84 antibody, Nucleolin phospho-Thr84 antibody, Phospho-NCL T84 antibody, NCL phospho-Thr84 antibody, Nucleolin pThr84 antibody, Phospho-C23 T84 antibody, Nucleolar protein C23 phospho-Thr84 antibody, Phosphorylated nucleolar protein C23 antibody

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