abcam

Product datasheet

Anti-Nucleostemin antibody ab70346

★★★★☆ **10 Abreviews**   **14 References**   **7 Images**

Overview

Product name	Anti-Nucleostemin antibody
Description	Rabbit polyclonal to Nucleostemin
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, IHC-P, WB, IP
Species reactivity	**Reacts with:** Mouse, Rat, Chicken, Human
	Predicted to work with: Rabbit, Horse, Dog, Chimpanzee
Immunogen	Synthetic peptide corresponding to Human Nucleostemin (C terminal). Database link: **Q9BVP2**
Positive control	HeLa, 293T and mouse 3T3 whole cell lysates.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As |

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 6.8
Preservative: 0.09% Sodium azide
Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	ab70346 was affinity purified using an epitope specific to Nucleostemin immobilized on solid support.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab70346 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (2)	Use a concentration of 1 µg/ml.
IHC-P	★★★★☆ (3)	1/200 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	★★★★☆ (4)	1/2000 - 1/10000. Detects a band of approximately 62 kDa (predicted molecular weight: 62 kDa).
IP	★★★★☆ (1)	Use at 1-2 µg/mg of lysate.

Target

Function	May be required to maintain the proliferative capacity of stem cells and may play an important role in tumorigenesis.
Tissue specificity	Increased levels in lung tissue in cancer patients.
Sequence similarities	Belongs to the MMR1/HSR1 GTP-binding protein family. Contains 1 G (guanine nucleotide-binding) domain.
Domain	The basic domain (B) allows nucleolar localization in the absence of GTP. The intermediate domain (I) inhibits nucleolar localization by the B domain and is required for exit from the nucleolus. Exit from the nucleolus to the nucleoplasm requires both the I and the acidic (A) domains, and may be triggered by GTP hydrolysis. In contrast to other GTP-binding proteins, this family is characterized by a circular permutation of the GTPase motifs described by a G4-G1-G3 pattern.
Cellular localization	Nucleus. Nucleus > nucleolus. Shuttles between the nucleus and nucleolus.

Images
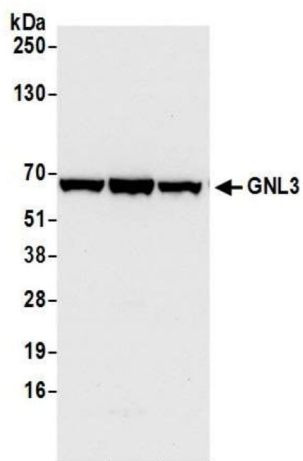
Western blot - Anti-Nucleostemin antibody
(ab70346)

All lanes : Anti-Nucleostemin antibody (ab70346) at 1/5000 dilution

Lane 1 : HeLa Whole cell lysate

Lane 2 : HEK293T Whole cell lysate
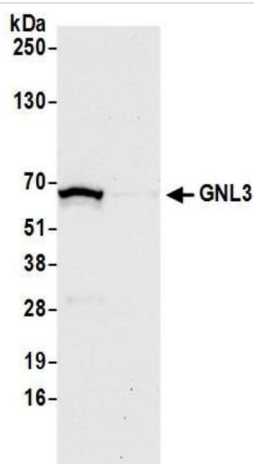
Lane 3 : Jurkat Whole cell lysate

Lysates/proteins at 50 µg per lane.

Secondary

All lanes : Goat anti-Rabbit Light Chain HRP Conjugate

Predicted band size: 62 kDa

Detection: Chemiluminescence with an exposure time of 10 seconds

Western blot - Anti-Nucleostemin antibody
(ab70346)

All lanes : Anti-Nucleostemin antibody (ab70346) at 1/2000 dilution

Lane 1 : TMCK-1 Whole cell lysate

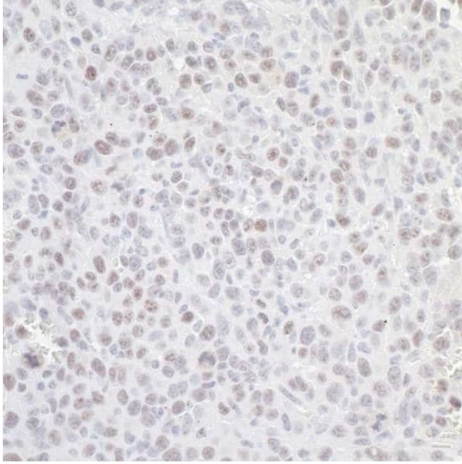**Lane 2 :** NIH 3T3 :Whole cell lysate

Lysates/proteins at 50 µg per lane.

Secondary

**All lanes :** Goat anti-Rabbit Light Chain HRP Conjugate

Predicted band size: 62 kDa

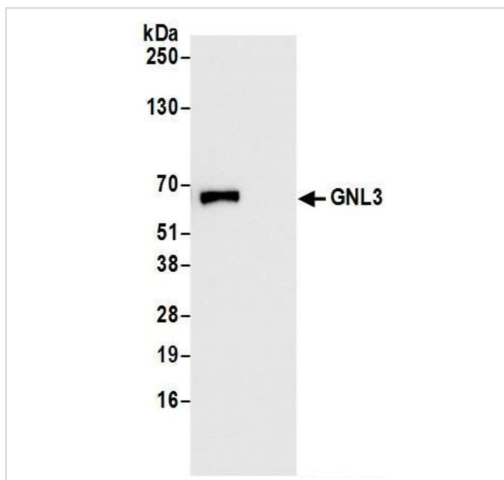Detection: Chemiluminescence with an exposure time of 30 seconds.

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Immunohistochemical analysis of Formalin/PFA-fixed paraffin-embedded section of mouse CT26 colon carcinoma tissue labelling Nucleostemin with ab70346 at 1:200 (1µg/ml). Detection: DAB.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nucleostemin antibody (ab70346)
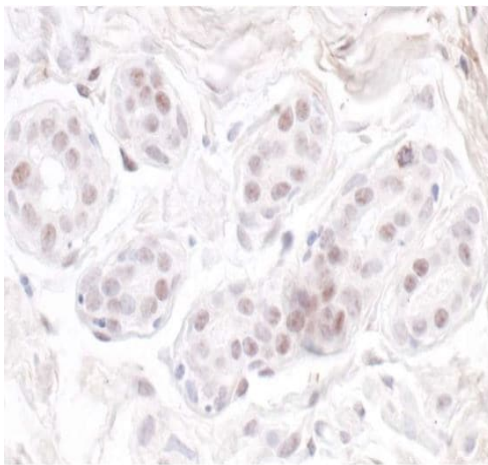
Immunohistochemical analysis of Formalin/PFA-fixed paraffin-embedded section of human breast carcinoma tissue labelling Nucleostemin with ab70346 at 1:200 (1µg/ml). Detection: DAB.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nucleostemin antibody (ab70346)
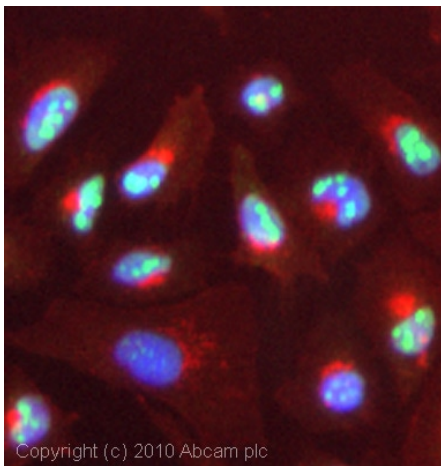
Nucleostemin was immunoprecipitated from HEK-293T whole cell lysate with 6 µg/mg lysate. Western blot was performed from the immunoprecipitate using ab70346 at 0.04 µg/ml dilution.

Lane 1: ab70346 IP in HEK-293T whole cell lysate.

Lane 2: Control IgG IP in HEK-293T whole cell lysate.

Immunoprecipitation - Anti-Nucleostemin antibody (ab70346)

ICC/IF image of ab70346 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab70346, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.
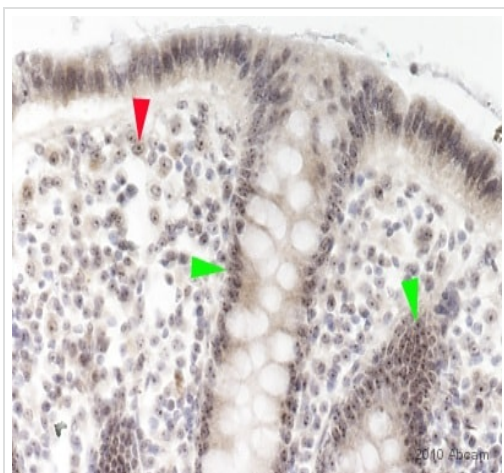
Immunocytochemistry/ Immunofluorescence - Anti-Nucleostemin antibody (ab70346)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nucleostemin antibody (ab70346)

This image is courtesy of an abreview submitted by Carl Hobbs, King's College London, United Kingdom

Immunohistochemistical detection of Nucleostemin with ab70346 on formaldehyde-fixed paraffin-embedded human colon sections. Antigen retrieval step: heat mediated in citric acid pH6 buffer. Blocking step: 1% BSA for 10 mins @ rt°C. Primary antibody ab70346 incubated at 1/50 for 16 hours in TBS/BSA/azide. Secondary antibody: anti-rabbit IgG conjugated to biotin (1/200). The intestinal epithelium is the most rapidly self-renewing tissue in adult mammals. Stem cell markers have been observed in cycling columnar cells at the crypt base (Nature 449, 1003-1007; 2007). The cells (nuclei of the simple columnar epithelium of the upper mucosa) immunoreactive for Nucleostemin in this image (green arrowheads) anatomically correspond to the same cells expected to be Lgr5 positivite. A red arrowhead indicates nucleolar positivity in one of many cell nuclei in the Lamina propria of the mucosa (this area is not known for stem cell posit

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