abcam

Product datasheet

Anti-NUP98 antibody [21A10] - BSA and Azide free ab179909

1 References 9 Images

Overview

Product name	Anti-NUP98 antibody [21A10] - BSA and Azide free
Description	Mouse monoclonal [21A10] to NUP98
Host species	Mouse
Specificity	ab179909 crossreacts with multiple nucleoproteins of S. cerevisiae, e.g. Nup116, Nup100, Nup145N, Nup57 and Nup9.
Tested applications	**Suitable for:** WB, ICC/IF, Functional Studies
Species reactivity	**Reacts with:** Human, Saccharomyces cerevisiae, Tetrahymena, Schizosaccharomyces pombe
Immunogen	**This product was produced with the following immunogens:** Synthetic peptide corresponding to Tetrahymena sp. NUP98 aa 1-29 (N terminal). Sequence: MFGNTGGGGLFGNTQTQQTGGGLFGQPQQ Database link: **D3KYQ3** Synthetic peptide corresponding to Tetrahymena sp. NUP98 aa 646-664. Sequence: SNPTQGGGLFGAANPGLGG Database link: **D3KYQ3** Run BLAST with ExPASy Run BLAST with NCBI Run BLAST with Run BLAST with
Epitope	GLF
Positive control	Tetrahymena thermophila, S. pombe and S. cerevisiae cells and cell extracts. HeLa cells.
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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 6 Constituents: 50% Glycerol (glycerin, glycerine), 50% PBS Filter-sterilized.
Purity	Protein G purified
Clonality	Monoclonal
Clone number	21A10
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab179909 in the following tested applications.

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

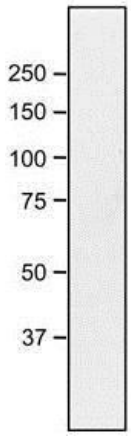
Application	Abreviews	Notes
WB		Use a concentration of 0.4 - 2 µg/ml. Predicted molecular weight: 112 kDa. NOT suitable for Human samples.
ICC/IF		Use a concentration of 0.5 - 10 µg/ml.
Functional Studies		Use at an assay dependent concentration.

Target

Function	Nup98 and Nup96 play a role in the bidirectional transport across the nucleoporin complex (NPC). The repeat domain in Nup98 has a direct role in the transport.
Involvement in disease	Note=A chromosomal aberration involving NUP98 is found in a form of acute myeloid leukemia. Translocation t(7;11)(p15;p15) with HOXA9. Translocation t(11;17)(p15;p13) with PHF23. Note=A chromosomal aberration involving NUP98 is found in childhood acute myeloid leukemia. Translocation t(5;11)(q35;p15.5) with NSD1. Translocation t(8;11)(p11.2;p15) with WHSC1L1. Note=A chromosomal aberration involving NUP98 is found in a form of therapy-related myelodysplastic syndrome. Translocation t(11;20)(p15;q11) with TOP1. Note=A chromosomal aberration involving NUP98 is found in a form of T-cell acute lymphoblastic leukemia (T-ALL). Translocation t(3;11)(q12.2;p15.4) with LNP1. Note=A chromosomal aberration involving NUP98 is associated with pediatric acute myeloid leukemia (AML) with intermediate characteristics between M2-M3 French-American-British (FAB) subtypes. Translocation t(9;11)(p22;p15) with PSIP1/LEDGF. The chimeric transcript is an in-frame fusion of NUP98 exon 8 to PSIP1/LEDGF exon 4.
Sequence similarities	Belongs to the nucleoporin GLFG family. Contains 1 peptidase S59 domain.
Domain	Contains G-L-F-G repeats.
Post-translational	Isoform 1 to isoform 4 are autoproteolytically cleaved to yield Nup98 and Nup96 or Nup98 only,

modifications	respectively. Cleaved Nup98 is necessary for the targeting of Nup98 to the nuclear pore and the interaction with Nup96.
Cellular localization	Nucleus > nuclear pore complex. Nucleus membrane. Nup96 is localized to the nucleoplasmic side of the nuclear pore complex, at or near the nucleoplasmic basket.

Images



Western blot - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

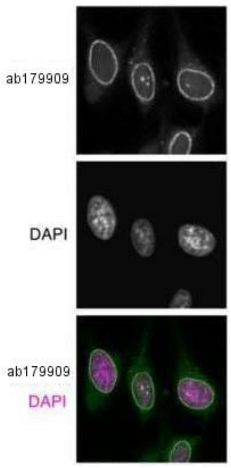
Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909) at 0.4 µg/ml + HeLa cell extract

Secondary
HRP-labeled anti-mouse IgG at 0.4 µg/ml

Developed using the ECL technique.

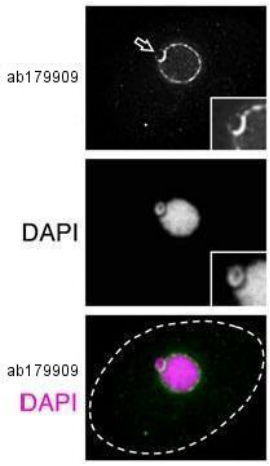
Predicted band size: 112 kDa

Image shows unsuitability of this antibody for Human samples.



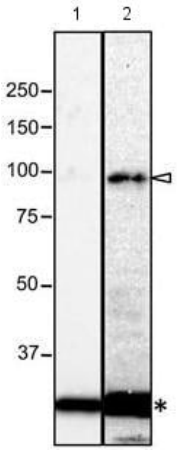
Immunocytochemistry/ Immunofluorescence - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

Immunofluorescence analysis of methanol-fixed HeLa cells, labeling NUP98 using ab179909 at 0.5 µg/ml, followed by Alexa Fluor 488-conjugated anti-mouse IgG (green) at 4 µg/ml. DAPI was used to stain DNA (magenta). Upper and middle panels correspond to black-and-white images while the bottom panel represents merged colored images.



Immunocytochemistry/ Immunofluorescence - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

Immunofluorescence analysis of methanol-fixed *Tetrahymena thermophila* cells, labeling NUP98 using ab179909 at 0.5 µg/ml, followed by Alexa Fluor 488-conjugated anti-mouse IgG (green) at 4 µg/ml. DAPI was used to stain DNA (magenta). Upper and middle panels correspond to black-and-white images while the bottom panel represents merged images. Dotted lines represent the outlines of cells. The open arrow indicates the micronucleus. Insets are magnified images showing the position of the micronucleus.



Western blot - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

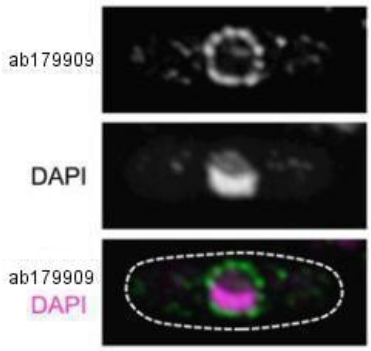
All lanes : Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909) at 2 µg/ml

All lanes : Tetrahymena thermophila cell extract

Developed using the ECL technique.

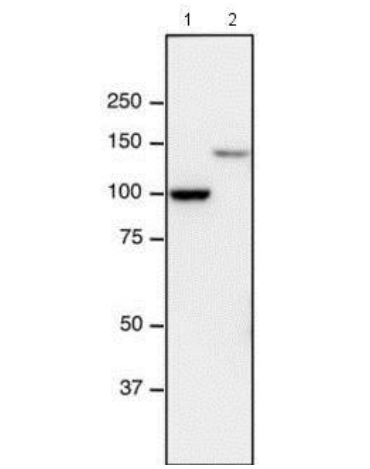
Predicted band size: 112 kDa
Observed band size: 98 kDa

Open arrowheads correspond to NUP98. Asterisk represents uncharacterized protein. For lane 2 exposure time was about 10 times longer than for lane 1.



Immunocytochemistry/ Immunofluorescence - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

Immunofluorescence analysis of formaldehyde-fixed, zymolyase-treated, *S. pombe* cells, labeling NUP98 using ab179909 at 10 µg/ml, followed by Alexa Fluor 488-conjugated anti-mouse IgG (green). DAPI was used to stain DNA (magenta). Upper and middle panels correspond to black-and-white images while the bottom panel represents merged images. Dotted lines represent the outlines of cells.



Western blot - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

All lanes : Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909) at 2 µg/ml

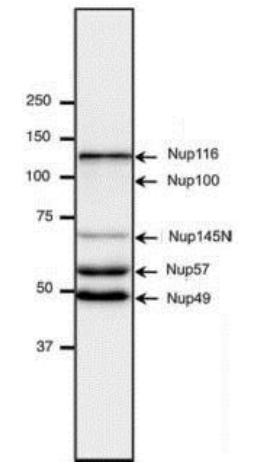
Lane 1 : Cell extract from S. pombe wild type
Lane 2 : Cell extract from S. pombe expressing endogenously NUP98 fused to a fluorescence protein

Developed using the ECL technique.

Predicted band size: 112 kDa

Immunocytochemistry/ Immunofluorescence - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

Immunofluorescence analysis of formaldehyde-fixed, zymolyase-treated, *S. cerevisiae* cells, labeling NUP98 using ab179909 at 10 µg/ml, followed by Alexa Fluor 488-conjugated anti-mouse IgG (green). DAPI was used to stain DNA (magenta). Upper and middle panels correspond to black-and-white images while the bottom panel represents merged images. Dotted lines represent the outlines of cells.

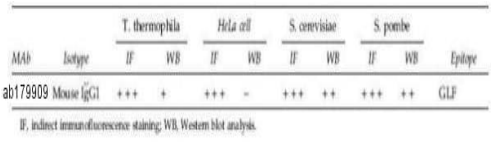


Western blot - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909) at 2 µg/ml + S. cerevisiae cell extract

Developed using the ECL technique.

Predicted band size: 112 kDa



		T. thermophila		HeLa cell		S. cerevisiae		S. pombe		
MAb	Isotype	IF	WB	IF	WB	IF	WB	IF	WB	Epitope
ab179909	Mouse IgG1	+++	+	+++	-	+++	++	+++	++	GLF

IF, indirect immunofluorescence staining; WB, Western blot analysis.

Functional Studies - Anti-NUP98 antibody [21A10] - BSA and Azide free (ab179909)

Summary of the suitability of ab179909 for immunological applications. IF: indirect immunofluorescence staining; WB: Western blotting analysis.

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