abcam

ab106768

Anti-NIPBL antibody [KT55]

Key facts

Isotype	IgG2a
Host species	Rat
Storage buffer	Preservative: 0.1% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human NIPBL. The exact immunogen used to generate this antibody is proprietary information. Database link Q6KC79
Clone number	KT55
Purification technique	Affinity purification Protein G
Specificity	Recognises Human and Mouse NIPBL isoform B (short form).
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from culture supernatant using a protein G column.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1 µg for 10^6 Cells

Notes	ab18450 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information NIPBL

Function	Plays an important role in the loading of the cohesin complex on to DNA. Forms a heterodimeric complex (also known as cohesin loading complex) with MAU2/SCC4 which mediates the loading of the cohesin complex onto chromatin (PubMed:22628566, PubMed:28914604). Plays a role in cohesin loading at sites of DNA damage. Its recruitment to double-strand breaks (DSBs) sites occurs in a CBX3-, RNF8- and RNF168-dependent manner whereas its recruitment to UV irradiation-induced DNA damage sites occurs in a ATM-, ATR-, RNF8- and RNF168-dependent manner (PubMed:28167679). Along with ZNF609, promotes cortical neuron migration during brain development by regulating the transcription of crucial genes in this process. Preferentially binds promoters containing paused RNA polymerase II. Up-regulates the expression of SEMA3A, NRP1, PLXND1 and GABBR2 genes, among others (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

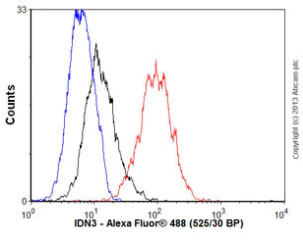
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

4 product images

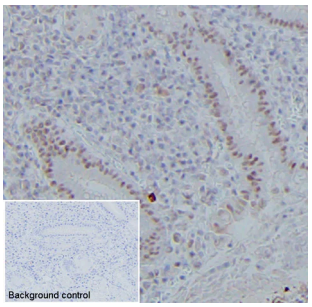


Flow Cytometry - Anti-NIPBL antibody [KT55] (ab106768)

NIPBL Flow Cytometry staining using rat Anti-NIPBL antibody

Overlay histogram showing HepG2 cells stained with ab106768 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab106768, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rat IgG (H+L) (ab150165) at 1/2000

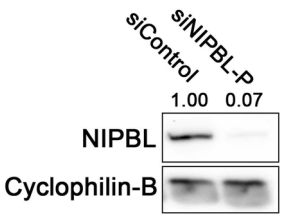
dilution for 30 min at 22°C. Isotype control antibody (black line) was rat IgG2a [aRTK2758] (ab18450, 1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NIPBL antibody [KT55] (ab106768)

NIPBL Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human stomach tissue using rat Anti-NIPBL antibody

IHC-P was performed using formalin-fixed paraffin-embedded human stomach tissue sections. Antigen was retrieved through addition of boiling Tris/EDTA buffer pH 9.0 in a pressure cooker for 3 min. Endogenous peroxidase activity was quenched by incubating the sections with 3% H2O2 for 30 min at room temperature. The sections were then incubated with NIPBL antibody (KT55) at room temperature for 1 h. Poly-peroxidase conjugated goat anti-mouse IgG (which cross reacts with rat IgG) was used as the secondary antibody. Diaminobenzidine (DAB) was used as the chromogen. Glandular cells are positively stained at the nuclei. The section was counterstained with hematoxylin.
A tissue section incubated with phosphate-buffered saline followed by incubation with the secondary antibody was used as the background control.

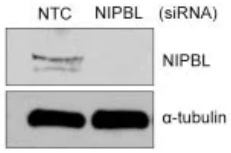


T.R Leylek et al Sci Rep . 2020 Jan 17;10(1):592. doi: 10.1038/s41598-020-57530-9.

Western blot - Anti-NIPBL antibody [KT55] (ab106768)

NIPBL Western blot staining using rat Anti-NIPBL antibody

Gene silencing efficiencies in HCT116 cells. Semi-quantitative western blot presenting residual proteins levels following NIPBL silencing with pooled siRNA duplexes in HCT116 cells. Cyclophilin-B as loading control. Residual protein levels are presented normalized to the respective loading control and are presented relative to siControl, which is set at 1.00.



C Meisenberg et al Molecular Cell 2019 Jan 17;73(2):212-223.e7. doi: 10.1016/j.molcel.2018.11.001. Epub 2018 Dec 13.

Western blot - Anti-NIPBL antibody [KT55] (ab106768)

NIPBL Western blot staining using rat Anti-NIPBL antibody

Western blot analysis of U2OS whole-cell extracts prepared from cells treated with siRNA targeting NIPBL. NTC, non-targeting control. α-Tubulin was used as a loading control.
Developed using the ECL technique.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.