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Product datasheet

Anti-NIPBL antibody [KT55] ab106768

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Overview

Product name	Anti-NIPBL antibody [KT55]
Description	Rat monoclonal [KT55] to NIPBL
Host species	Rat
Specificity	Recognises Human and Mouse NIPBL isoform B (short form).
Tested applications	**Suitable for:** Flow Cyt
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human NIPBL (C terminal).
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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.1% Sodium azide Constituent: PBS
Purity	Protein G purified
Purification notes	Purified from culture supernatant using a protein G column.
Clonality	Monoclonal
Clone number	KT55
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab106768 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
Flow Cyt		Use 1µg for 10^6 cells. **ab18450** - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Target

Function Probably plays a structural role in chromatin. Involved in sister chromatid cohesion, possibly by interacting with the cohesin complex.

Tissue specificity Widely expressed. Highly expressed in heart, skeletal muscle, fetal and adult liver, fetal and adult kidney. Expressed at intermediates level in thymus, placenta, peripheral leukocyte and small intestine. Weakly or not expressed in brain, colon, spleen and lung.

Involvement in disease Cornelia de Lange syndrome 1

Sequence similarities Belongs to the SCC2/Nipped-B family.
Contains 5 HEAT repeats.

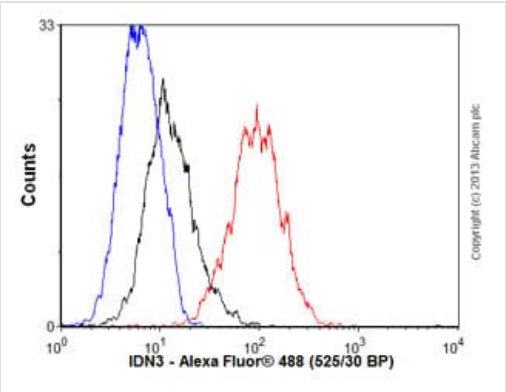
Developmental stage In embryos, it is expressed in developing limbs and later in cartilage primordia of the ulna and of various hand bones. Sites of craniofacial expression include the cartilage primordium of the basioccipital and basisphenoid skull bones and elsewhere in the head and face, including a region encompassing the mesenchyme adjacent to the cochlear canal. Also expressed in the spinal column, notochord and surface ectoderm sclerotome and what seem to be migrating myoblasts. Expressed in the developing heart in the atrial and ventricular myocardium and in the ventricular tubeculae but absent in the endocardial cushions. Also expressed in the developing esophagus, trachea and midgut loops, in the bronchi of the lung and in the tubules of the metanephros. Expression in organs and tissues not typically affected in CDL (e.g. the developing trachea, bronchi, esophagus, heart and kidney) may reflect a bias towards underreporting of more subtle aspects of the phenotype or problems that typically present later in life. Expressed in the mesenchyme surrounding the cochlear canal possibly reflecting the hearing impairment commonly found. Weakly or not expressed in embryonic brain.

Domain Contains one Pro-Xaa-Val-Xaa-Leu (PxVxL) motif, which is required for interaction with chromoshadow domains. This motif requires additional residues -7, -6, +4 and +5 of the central Val which contact the chromoshadow domain.

Cellular localization Nucleus.

Form There are 3 isoforms produced by alternative splicing. Isoform 1 also known as: A; IDN3-A. Isoform 2 also known as: B; IDN3-B.

Images



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

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.

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