abcam

# Product datasheet

# Anti-KMT3B / NSD1 antibody ab222145

1 Image

## Overview

| | |
|---|---|
| **Product name** | Anti-KMT3B / NSD1 antibody |
| **Description** | Rabbit polyclonal to KMT3B / NSD1 |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** ICC/IF |
| **Species reactivity** | **Reacts with:** Human<br>**Predicted to work with:** Mouse |
| **Immunogen** | Recombinant fragment corresponding to Human KMT3B/ NSD1 aa 806-936.<br>Sequence:<br>INEECSLKCCSSDTKGSPLASISKSGKVDGLKLLNNMH<br>EKTRDSSDIETA<br>VVKHVLSELKELSYRSLGEDVSDSGTSKPSKPLLFSS<br>ASSQNHIPIEPDY<br>KFSTLLMMLKDMHDSKTKEQRLMTAQNLVSY<br><br>Database link: Q96L73<br><br>Run BLAST with Run BLAST with |
| **Positive control** | ICC/IF: HEK293 (human epithelial cell line from embryonic kidney) cells. |

## 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: 7.2<br>Preservative: 0.02% Sodium azide<br>Constituents: 40% Glycerol, PBS |
| **Purity** | Immunogen affinity purified |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

## Applications

## Applications

Our Abpromise guarantee covers the use of **ab222145** 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 | | Use a concentration of 1 - 4 µg/ml.<br>Fixation/Permeabilization: PFA/Triton X-100. |

## Target

**Function**

Histone methyltransferase. Preferentially methylates 'Lys-36' of histone H3 and 'Lys-20' of histone H4 (in vitro). Transcriptional intermediary factor capable of both negatively or positively influencing transcription, depending on the cellular context.

**Tissue specificity**

Expressed in the fetal/adult brain, kidney, skeletal muscle, spleen, and the thymus, and faintly in the lung.

**Involvement in disease**

Defects in NSD1 are the cause of Sotos syndrome (SOTOSS) [MIM:117550]; also known as cerebral gigantism. It is a disorder characterized by excessively rapid growth, acromegalic features, and a nonprogressive cerebral disorder with mental retardation. High-arched palate and prominent jaw are noted in several patients. Most cases of Sotos syndrome are sporadic and may represent new dominant mutation.
Defects in NSD1 are the cause of Weaver syndrome (WES) [MIM:277590]. WES is a syndrome of accelerated growth and osseous maturation, unusual craniofacial appearance, hoarse and low-pitched cry, and hypertonia with camptodactyly.
Defects in NSD1 are a cause of Beckwith-Wiedemann syndrome (BWS) [MIM:130650]. BWS is a genetically heterogeneous disorder characterized by anterior abdominal wall defects including exomphalos (omphalocele), pre- and postnatal overgrowth, and macroglossia. Additional less frequent complications include specific developmental defects and a predisposition to embryonal tumors.
Note=A chromosomal aberration involving NSD1 is found in childhood acute myeloid leukemia. Translocation t(5;11)(q35;p15.5) with NUP98.
Note=A chromosomal aberration involving NSD1 is found in an adult form of myelodysplastic syndrome (MDS). Insertion of NUP98 into NSD1 generates a NUP98-NSD1 fusion product.

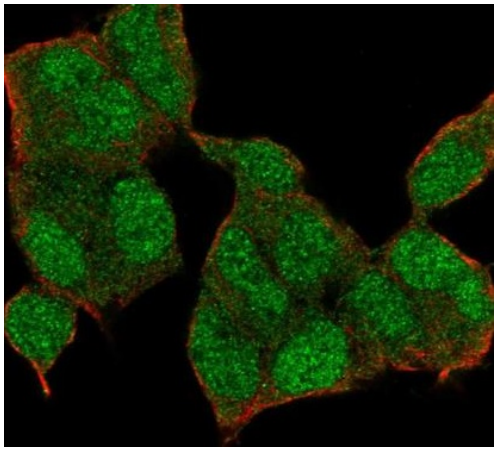
**Sequence similarities**

Belongs to the histone-lysine methyltransferase family.
Contains 1 AWS domain.
Contains 4 PHD-type zinc fingers.
Contains 1 post-SET domain.
Contains 2 PWWP domains.
Contains 1 SET domain.

**Cellular localization**

Nucleus. Chromosome.

## Images



Immunocytochemistry/ Immunofluorescence - Anti-KMT3B / NSD1 antibody (ab222145)

PFA fixed/ Triton X-100 permeabilized HEK293 (human epithelial cell line from embryonic kidney) cells stained for KMT3B / NSD1 (green) using ab222145 (4 µg/ml) in Immunocytochemistry/ Immunofluorescence.



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