# abcam

## Product datasheet

# Anti-NMNAT2 antibody ab110040

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Overview

Product name Anti-NMNAT2 antibody

**Description** Rabbit polyclonal to NMNAT2

Host species Rabbit

Tested applications Suitable for: WB, ICC/IF

Species reactivity Reacts with: Mouse, Rat, Human

Predicted to work with: Chinese hamster

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

**Positive control** WB: This antibody gave a positive signal in the following tissue lysates: Rat Brain; Mouse Brain;

Rat Cortex; Mouse Cortex; Rat Forebrain. ICC/IF: This antibody gave a positive result in IF in the

following Methanol fixed cell line: SKNSH

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 -

 $80^{\circ}\text{C}\,.$  Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

Purity Immunogen affinity purified

1

**Clonality** Polyclonal

**Isotype** IgG

#### **Applications**

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab110040 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	<b>★</b> ★ ★ ★ <b>(1)</b>	Use a concentration of 1 µg/ml. Detects a band of approximately 37 kDa (predicted molecular weight: 34 kDa).
ICC/IF		Use a concentration of 5 µg/ml.

#### **Target**

**Function** 

Catalyzes the formation of NAD(+) from nicotinamide mononucleotide (NMN) and ATP. Can also use the deamidated form; nicotinic acid mononucleotide (NaMN) as substrate but with a lower efficiency. Cannnot use triazofurin monophosphate (TrMP) as substrate. Also catalyzes the reverse reaction, i.e. the pyrophosphorolytic cleavage of NAD(+). For the pyrophosphorolytic activity prefers NAD(+), NADH and NAAD as substrates and degrades nicotinic acid adenine dinucleotide phosphate (NHD) less effectively. Fails to cleave phosphorylated dinucleotides NADP(+), NADPH and NAADP(+).

**Tissue specificity** 

Highly expressed in brain, in particular in cerebrum, cerebellum, occipital lobe, frontal lobe, temporal lobe and putamen. Also found in the heart, skeletal muscle, pancreas and islets of Langerhans.

**Pathway** 

Cofactor biosynthesis; NAD(+) biosynthesis; NAD(+) from nicotinamide D-ribonucleotide: step

1/1.

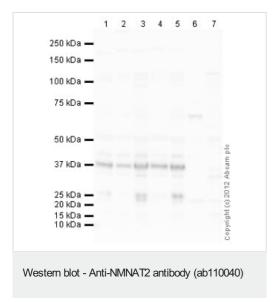
Sequence similarities

Belongs to the eukaryotic NMN adenylyltransferase family.

**Cellular localization** 

Cytoplasm. Golgi apparatus.

### **Images**



All lanes: Anti-NMNAT2 antibody (ab110040) at 1 µg/ml

Lane 1: Brain (Rat) Tissue Lysate

Lane 2: Brain (Mouse) Tissue Lysate

Lane 3: Rat Cortex Tissue Lysate

Lane 4: Mouse Cortex Tissue Lysate

Lane 5: Rat Forebrain Rat Tissue Lysate

Lane 6: Lung (Rat) Tissue Lysate

Lane 7: NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell

Lysate

Lysates/proteins at 10 µg per lane.

#### **Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

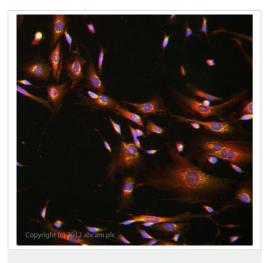
**Predicted band size:** 34 kDa **Observed band size:** 37 kDa

Additional bands at: 24 kDa, 68 kDa. We are unsure as to the

identity of these extra bands.

Exposure time: 1 minute

Both Rat Lung tissue lysate and NIH3T3 whole cell lysate were used as negative controls for Nicotinamide mononucleotide adenylyltransferase 2 (NMNAT2)



Immunocytochemistry/ Immunofluorescence - Anti-NMNAT2 antibody (ab110040)

ab110040 stained SKNSH cells. The cells were 100% methanol fixed (5 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 ab110040 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) lgG (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.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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