abcam

Product datasheet

Anti-Dnmt3a antibody [PCRP-DNMT3A-1E2] ab237985

2 Images

Overview

Product name	Anti-Dnmt3a antibody [PCRP-DNMT3A-1E2]
Description	Mouse monoclonal [PCRP-DNMT3A-1E2] to Dnmt3a
Host species	Mouse
Tested applications	**Suitable for:** Protein Array, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein corresponding to Human Dnmt3a. Database link: **Q9Y6K1**
Positive control	IHC-P: Human placenta tissue.
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: 7.2 Preservative: 0.05% Sodium azide Constituents: PBS, 0.05% BSA
Purity	Protein A/G purified
Purification notes	Purified from bioreactor concentrate by Protein A/G.
Clonality	Monoclonal
Clone number	PCRP-DNMT3A-1E2
Isotype	IgG1

Applications

Our **Abpromise guarantee** covers the use of ab237985 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
Protein Array		Use at an assay dependent concentration.
IHC-P		Use a concentration of 1 - 2 µg/ml. Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0, for 10-20 minutes followed by cooling at RT for 20 minutes. Incubate with primary antibody for 30 minutes at RT.

Target

Function	Required for genome wide de novo methylation and is essential for the establishment of DNA methylation patterns during development. DNA methylation is coordinated with methylation of histones. It modifies DNA in a non-processive manner and also methylates non-CpG sites. May preferentially methylate DNA linker between 2 nucleosomal cores and is inhibited by histone H1. Plays a role in paternal and maternal imprinting. Required for methylation of most imprinted loci in germ cells. Acts as a transcriptional corepressor for ZNF238. Can actively repress transcription through the recruitment of HDAC activity.
Tissue specificity	Highly expressed in fetal tissues, skeletal muscle, heart, peripheral blood mononuclear cells, kidney, and at lower levels in placenta, brain, liver, colon, spleen, small intestine and lung.
Sequence similarities	Belongs to the C5-methyltransferase family. Contains 1 ADD domain. Contains 1 GATA-type zinc finger. Contains 1 PHD-type zinc finger. Contains 1 PWWP domain.
Domain	The PWWP domain is essential for targeting to pericentric heterochromatin.
Post-translational modifications	Sumoylated; sumoylation disrupts the ability to interact with histone deacetylases (HDAC1 and HDAC2) and repress transcription.
Cellular localization	Nucleus. Cytoplasm. Accumulates in the major satellite repeats at pericentric heterochromatin.

Images

| Rank	Protein	Z score	S score
1	DNMT3A	139.67	132.85
2	RECQL5	6.82	1.04
3	DNMT3A	5.78	1.65
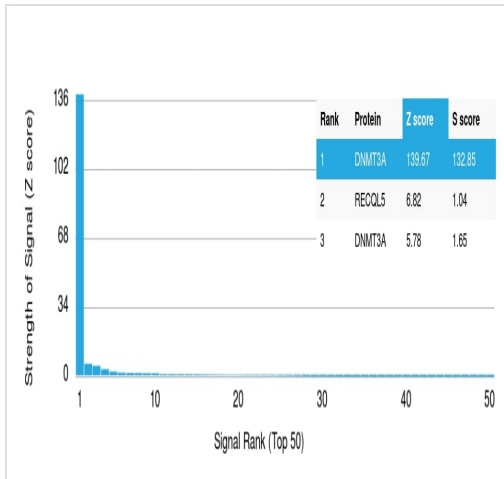
Protein Array - Anti-Dnmt3a antibody [PCRP-DNMT3A-1E2] (ab237985)

ab237985 was tested in protein array against over 19000 different full-length human proteins.

Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target.

A MAb is specific to its intended target if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.
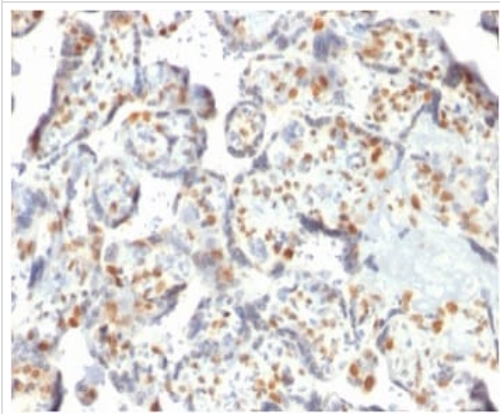
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Dnmt3a antibody [PCRP-DNMT3A-1E2] (ab237985)

Formalin-fixed, paraffin-embedded human placenta tissue stained for Dnmt3a with ab237985 at 2 µg/ml in immunohistochemical analysis.

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

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