

Product datasheet

Anti-Hexokinase II antibody [3D3] ab104836

★★★★★ [8 Abreviews](#) [66 References](#) [6 Images](#)

Overview

Product name	Anti-Hexokinase II antibody [3D3]
Description	Mouse monoclonal [3D3] to Hexokinase II
Host species	Mouse
Tested applications	Suitable for: WB, IHC-P, Flow Cyt
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment corresponding to Human Hexokinase II.
Positive control	WB: Jurkat, HeLa and HEK293 cell lysates. IHC-P: Human esophagus and lung cancer tissues. Flow Cyt: K562 cells.
General notes	<p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.03% Sodium azide Constituent: PBS
Purity	Protein G purified
Purification notes	Purified from tissue culture supernatant.
Clonality	Monoclonal
Clone number	3D3
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab104836 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	★★★★★ (4)	1/500 - 1/2000. Predicted molecular weight: 102 kDa.
IHC-P	★★★☆☆ (3)	1/200 - 1/1000.
Flow Cyt		Use at an assay dependent concentration. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Tissue specificity

Predominant hexokinase isozyme expressed in insulin-responsive tissues such as skeletal muscle.

Pathway

Carbohydrate metabolism; hexose metabolism.

Sequence similarities

Belongs to the hexokinase family.
Contains 2 hexokinase domains.

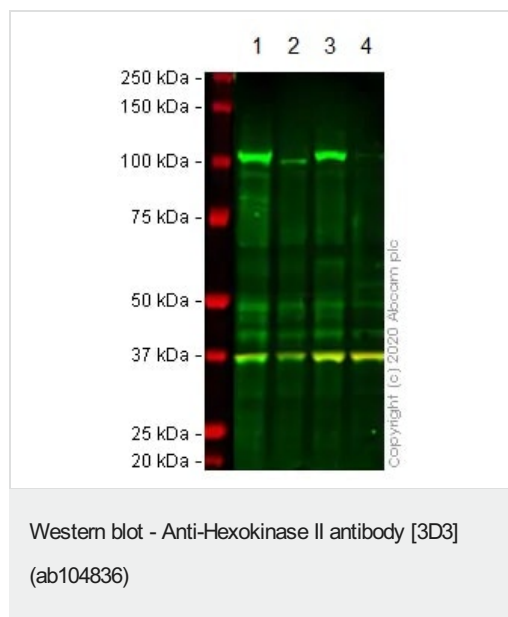
Domain

The N- and C-terminal halves of this hexokinase show extensive sequence similarity to each other. The catalytic activity is associated with the C-terminus while regulatory function is associated with the N-terminus. Each domain can bind a single glucose and Gluc-6-P molecule.

Cellular localization

Mitochondrion outer membrane. Its hydrophobic N-terminal sequence may be involved in membrane binding.

Images



All lanes : Anti-Hexokinase II antibody [3D3] (ab104836) at 1/500 dilution

Lane 1 : Wild-type HEK-293T cell lysate

Lane 2 : HK2 CRISPR/Cas9 edited HEK-293T cell lysate

Lane 3 : HeLa cell lysate

Lane 4 : A549 cell lysate

Lysates/proteins at 20 µg per lane.

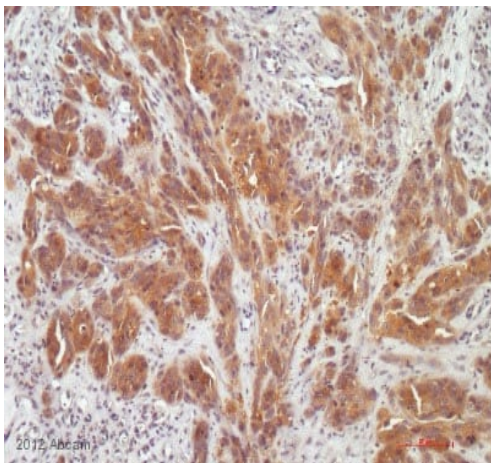
Performed under reducing conditions.

Predicted band size: 102 kDa

Observed band size: 102 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab104836 observed at 102 kDa. Red - loading control **ab181602** (Rabbit Anti-GAPDH antibody [EPR16891]) observed at 37kDa.

ab104836 was shown to react with Hexokinase II in wild-type HEK-293T cells in western blot. The band observed in HK2 CRISPR/Cas9 edited sample lane below 102 kDa may represent truncated forms and cleaved fragments. This has not been investigated further. Wild-type and HK2 CRISPR/Cas9 edited HEK-293T cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with ab104836 and **ab181602** (Rabbit Anti-GAPDH antibody [EPR16891]) overnight at 4°C at a 1 in 500 Dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed (**ab216772**) and Goat anti-Rabbit IgG H&L (IRDye® 680RD) preabsorbed (**ab216777**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

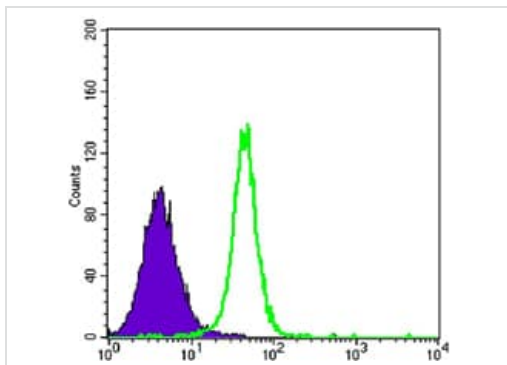


Immunohistochemical analysis of human skin tissue, staining Hexokinase II with ab104836.

Tissue was fixed with paraformaldehyde and blocked with 10% BSA for 2 hours at room temperature; antigen retrieval was by heat mediation in citrate buffer. Samples were incubated with primary antibody (1/250 in 5% NGS + 10% BSA in PBS) for 16 hours at 4°C. An HRP-conjugated goat anti-mouse polyclonal IgG (1/250) was used as the secondary antibody.

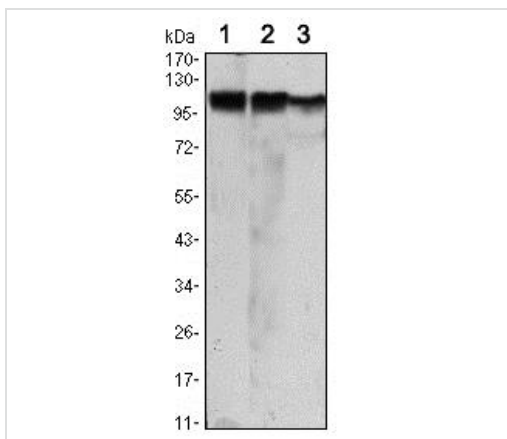
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hexokinase II antibody [3D3] (ab104836)

This image is courtesy of an Abreview submitted by Ms Hadas Pahima



Flow Cytometry - Anti-Hexokinase II antibody [3D3]
(ab104836)

ab104836 staining Hexokinase II in K562 cells by Immunofluorescence (green) and negative control (purple).



Western blot - Anti-Hexokinase II antibody [3D3]
(ab104836)

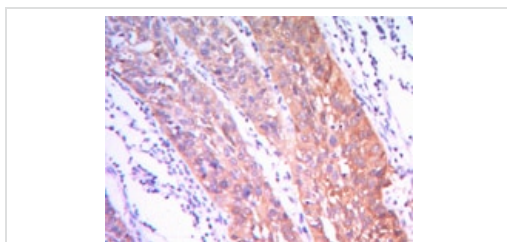
All lanes : Anti-Hexokinase II antibody [3D3] (ab104836) at 1/500 dilution

Lane 1 : Jurkat cell lysate

Lane 2 : HeLa cell lysate

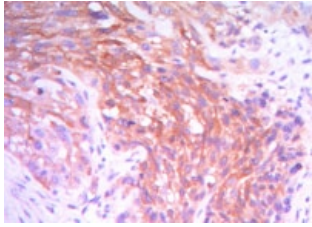
Lane 3 : HEK293 cell lysate

Predicted band size: 102 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hexokinase II antibody [3D3] (ab104836)

ab104836 at 1/200 dilution staining Hexokinase II in human esophagus cancer by Immunohistochemistry, Paraffin-embedded tissue with DAB staining.



ab104836 at 1/200 dilution staining Hexokinase II in human lung cancer by Immunohistochemistry, Paraffin-embedded tissue with DAB staining.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Hexokinase II antibody [3D3] (ab104836)

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

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