abcam

Product datasheet

Anti-HNF-4-alpha antibody [K9218] ab41898

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Overview

Product name	Anti-HNF-4-alpha antibody [K9218]
Description	Mouse monoclonal [K9218] to HNF-4-alpha
Host species	Mouse
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Rat, Human **Predicted to work with:** Pig
Immunogen	Recombinant fragment corresponding to Human HNF-4-alpha aa 1-100. Run BLAST with ExPASy Run BLAST with NCBI
Positive control	Human liver hepatocytes and rat intestine epithelial cell.
General notes	This product was changed from ascites to tissue culture supernatant on 3rd April 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. 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 Preservative: 0.1% Sodium azide Physiological saline.
Purity	Tissue culture supernatant
Clonality	Monoclonal

Clone number	K9218
Isotype	IgG2a

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab41898 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	★★★★★ (2)	Use at an assay dependent concentration. Detects a band of approximately 53 kDa (predicted molecular weight: 53 kDa).
IHC-P	★★★★☆ (2)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (2)	Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration. **ab170191** - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Target

Function	Transcriptionally controlled transcription factor. Binds to DNA sites required for the transcription of alpha 1-antitrypsin, apolipoprotein CIII, transthyretin genes and HNF1-alpha. May be essential for development of the liver, kidney and intestine.
Involvement in disease	Defects in HNF4A are the cause of maturity-onset diabetes of the young type 1 (MODY1) [MIM:125850]; also symbolized MODY-1. MODY is a form of diabetes that is characterized by an autosomal dominant mode of inheritance, onset in childhood or early adulthood (usually before 25 years of age), a primary defect in insulin secretion and frequent insulin-independence at the beginning of the disease.
Sequence similarities	Belongs to the nuclear hormone receptor family. NR2 subfamily. Contains 1 nuclear receptor DNA-binding domain.
Post-translational modifications	Phosphorylated on tyrosine residue(s); phosphorylation is important for its DNA-binding activity. Phosphorylation may directly or indirectly play a regulatory role in the subnuclear distribution.
Cellular localization	Nucleus.

Images

Western blot - Anti-HNF-4-alpha antibody [K9218] (ab41898)

Anti-HNF-4-alpha antibody [K9218] (ab41898) at 1 µg/ml + HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate at 10 µg

Secondary
Goat Anti-Mouse IgG H&L (HRP) preadsorbed (**ab97040**) at 1/5000 dilution

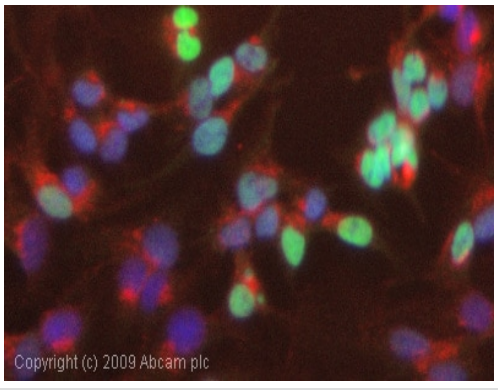
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 53 kDa
Observed band size: 53 kDa
Additional bands at: 108 kDa, 37 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 4 minutes

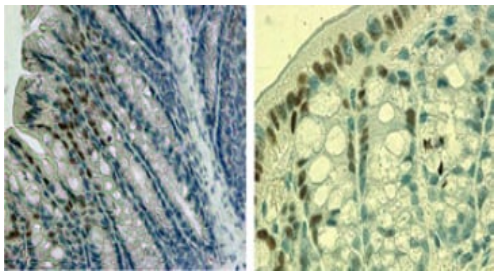
This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-HNF-4-alpha antibody [K9218] (ab41898)

ICC/IF image of ab41898 stained HepG2 cells. The cells were 4% PFA fixed (10 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 (ab41898, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) (**ab150113**) 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.

This image was generated using the ascites version of the product.

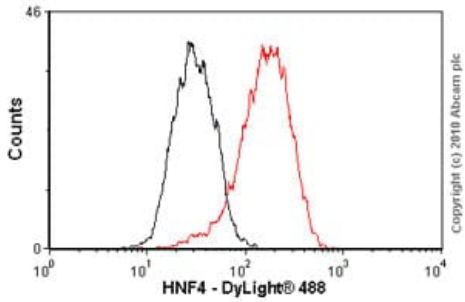


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HNF-4-alpha antibody [K9218] (ab41898)

Image from Algamas-Dimantov A et al., J Lipid Res. 2012 Jun;53(6):1056-70. doi: 10.1194/jlr.M021949. Epub 2012 Feb 22. Fig 5.; The Journal of Lipid Research, June 2012, vol. 53 no. 6 1056-1070

Immunohistochemical analysis of obese mouse colon tissue, staining HNF-4-alpha with ab41898 at 1/200 dilution.

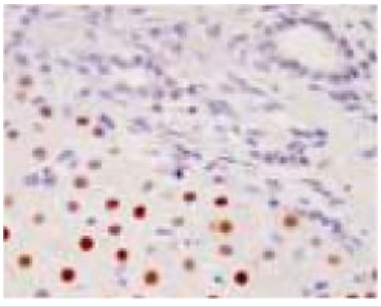
This image was generated using the ascites version of the product.



Flow Cytometry - Anti-HNF-4-alpha antibody [K9218] (ab41898)

Overlay histogram showing HepG2 cells stained with ab41898 (red line). The cells were fixed with 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 (**ab7481**) / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab41898, 2µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (**ab91361**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a significantly decreased signal in HepG2 cells fixed with 4% paraformaldehyde/permeabilized in 0.1% PBS-Tween used under the same conditions.

This image was generated using the ascites version of the product.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HNF-4-alpha antibody [K9218] (ab41898)

ab41898 staining HNF-4-alpha in human liver hepatocytes (10-20 ug/mL) by Immunohistochemistry, formalin-fixed paraffin embedded sections.

This image was generated using the ascites version of the product.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HNF-4-alpha antibody [K9218] (ab41898)

ab41898 staining HNF-4-alpha in Rat Intestine epithelial cell(10-20 ug/mL) by Immunohistochemistry, formalin-fixed paraffin embedded sections.

This image was generated using the ascites version of the product.

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