

## Product datasheet

# Anti-HNF-4-alpha antibody [K9218] - ChIP Grade ab41898

★★★★★ 8 Abreviews 43 References 6 Images

### Overview

<b>Product name</b>	Anti-HNF-4-alpha antibody [K9218] - ChIP Grade
<b>Description</b>	Mouse monoclonal [K9218] to HNF-4-alpha - ChIP Grade
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, ELISA, IP, IHC-P, ICC/IF, Flow Cyt, ChIP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Cow, Human <b>Predicted to work with:</b> Pig
<b>Immunogen</b>	Recombinant fragment corresponding to Human HNF-4-alpha aa 3-49. Sequence: MADYSAALDPAYTTLEFENVQVLTMGNDTSPSEGTLN NAPNSLGVSAL  <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>Positive control</b>	Human liver hepatocytes and rat intestine epithelial cell.
<b>General notes</b>	This product was changed from ascites to tissue culture supernatant on 3 <sup>rd</sup> 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.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.1% Sodium azide  Physiological saline.
<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	K9218
<b>Isotype</b>	IgG2a

## Applications

Our [Abpromise guarantee](#) covers the use of **ab41898** in the following tested applications.

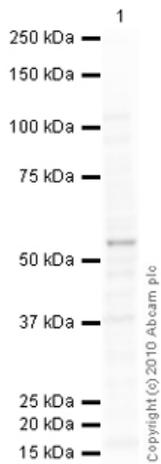
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★	Use at an assay dependent concentration. Detects a band of approximately 53 kDa (predicted molecular weight: 53 kDa).
ELISA		Use at an assay dependent concentration.
IP	★★★★☆	Use at an assay dependent concentration.
IHC-P	★★★★☆	Use at an assay dependent concentration.
ICC/IF	★★★★★	Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration. <a href="#">ab170191</a> - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
ChIP		Use at an assay dependent concentration. PubMed: 20463007
EMSA		Use at an assay dependent concentration.

## Target

<b>Function</b>	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.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the nuclear hormone receptor family. NR2 subfamily. Contains 1 nuclear receptor DNA-binding domain.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Nucleus.

## Images



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

Anti-HNF-4-alpha antibody [K9218] - ChIP Grade (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.

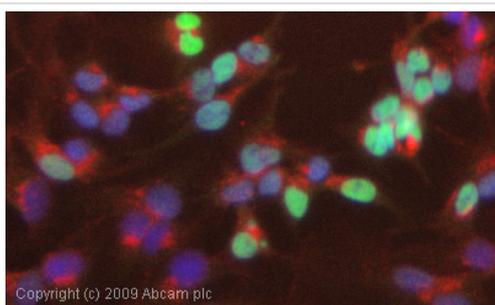
**Predicted band size:** 53 kDa

**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

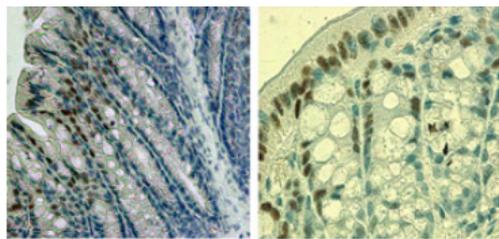
This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-HNF-4-alpha antibody [K9218] - ChIP Grade (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.

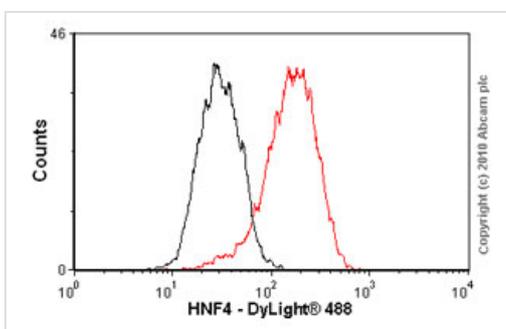


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HNF-4-alpha antibody [K9218] - ChIP Grade (ab41898)

Image from Algameas-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.

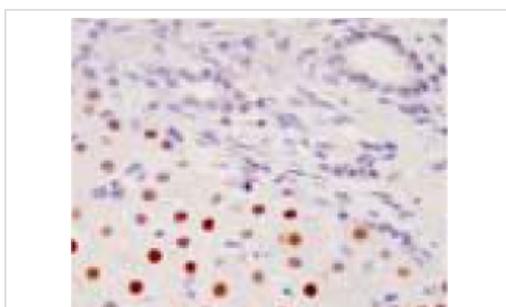


Flow Cytometry - Anti-HNF-4-alpha antibody [K9218] - ChIP Grade (ab41898)

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<sup>6</sup> 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<sup>6</sup> 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.

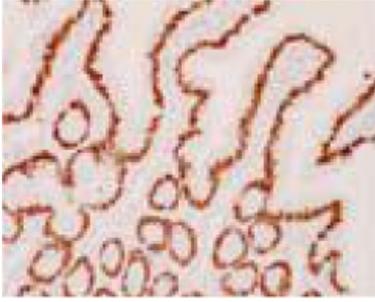
This image was generated using the ascites version of the product.



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



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.

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

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

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