abcam

Product datasheet

Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free ab251275

Recombinant RabMAb

7 Images

Overview

Product name	Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free
Description	Rabbit monoclonal [EPR16786] to HNF-4-alpha - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P, ChIC/CUT&RUN-seq, ChIP-sequencing
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Mouse and rat liver lysates. Human fetal liver and Human stomach lysates. HepG2 whole cell lysate. IHC-P: Human hepatocellular carcinoma tissue. ICC/IF: HepG2 cells. ChIP-seq: HepG2 cells. ChIC/CUT&RUN-Seq: HepG2 cells.
General notes	ab251275 is the carrier-free version of **ab199431**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR16786
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab251275 in the following tested applications.

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

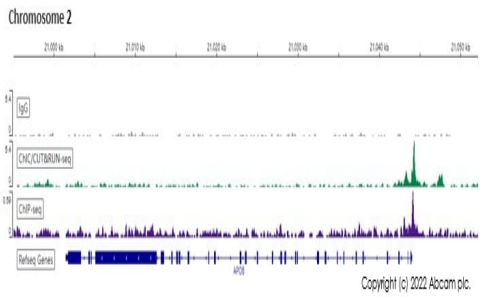
Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 47, 53 kDa (predicted molecular weight: 53 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ChIC/CUT&RUN-seq		Use at an assay dependent concentration.
ChIP-sequencing		Use at an assay dependent concentration.

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



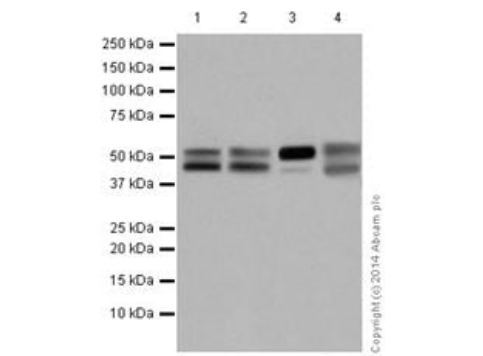
ChIC/CUT&RUN sequencing - Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free (ab251275)

ChIC/CUT&RUN was performed using a pAG-MNAse at a final concentration of 700 ng/mL, 2 x 10^5 HepG2 (Human liver hepatocellular carcinoma cell line) cells and 5 µg of **ab199431** [EPR16786]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control **ab172730** is also shown.
The ChIP data was conducted on chromatin prepared from HepG2 cells. ChIP was performed with 10^7 HepG2 cells and 8 µg of **ab199431** [EPR16786]. ChIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads.

Additional screenshots of mapped reads can be downloaded **here**.

The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.

This data was developed using **ab199431**, the same antibody clone in a different buffer formulation.



Western blot - Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free (ab251275)

All lanes : Anti-HNF-4-alpha antibody [EPR16786] - N-terminal (**ab199431**) at 1/10000 dilution

Lane 1 : Mouse liver tissue lysate
Lane 2 : Rat liver tissue lysate
Lane 3 : Human fetal liver tissue lysate
Lane 4 : Human stomach tissue lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

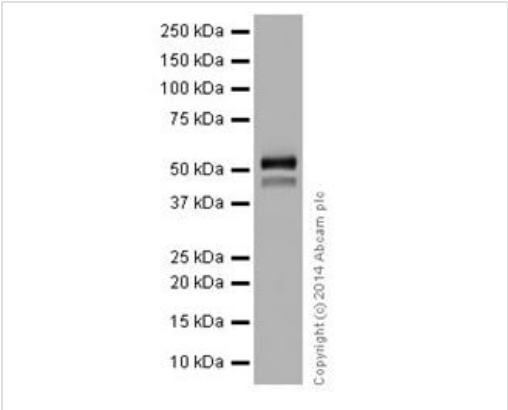
Predicted band size: 53 kDa
Observed band size: 47, 53 kDa

Exposure time: 3 minutes

This data was developed using **ab199431**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

This antibody can recognize 3 isoforms. The predicted MW are 53KDa, 52 KDa and 47KDa, respectively.



Western blot - Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free (ab251275)

Anti-HNF-4-alpha antibody [EPR16786] - N-terminal (**ab199431**) at 1/10000 dilution + HepG2 (Human liver hepatocellular carcinoma) whole cell lysate at 10 µg

Secondary
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

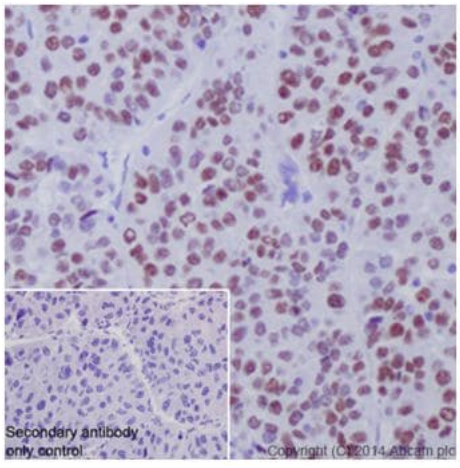
Predicted band size: 53 kDa
Observed band size: 47, 53 kDa

Exposure time: 1 minute

This data was developed using **ab199431**, the same antibody clone in a different buffer formulation.

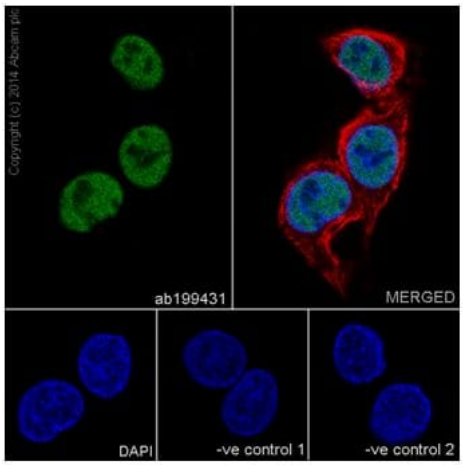
Blocking and dilution buffer: 5% NFDM/TBST.

This antibody can recognize 3 isoforms. The predicted MW are 53KDa, 52 KDa and 47KDa, respectively.



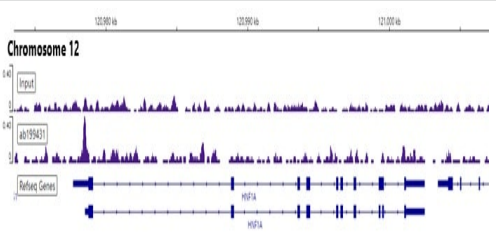
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free (ab251275)

This data was developed using **ab199431**, the same antibody clone in a different buffer formulation.Immunohistochemical analysis of paraffin-embedded Human hepatocellular carcinoma tissue labeling HNF-4-alpha with **ab199431** at 1/400 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Nucleus staining on Human hepatocellular carcinoma tissue is observed. Counter stained with Hematoxylin.
Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**). Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



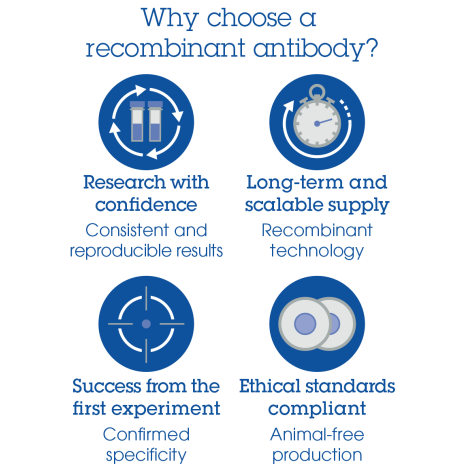
Immunocytochemistry/ Immunofluorescence - Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free (ab251275)

This data was developed using **ab199431**, the same antibody clone in a different buffer formulation.Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (Human liver hepatocellular carcinoma) cells labeling HNF-4-alpha with **ab199431** at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/500 dilution (green). Nuclear staining on HepG2 cell line is observed. The nuclear counterstain is DAPI (blue). Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows:-
-ve control 1 - **ab199431** at 1/250 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2. - **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.



ChIP-sequencing - Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free (ab251275)

Chromatin was prepared from HepG2 (Human liver hepatocellular carcinoma cell line) cells. ChIP was performed with 10^7 HepG2 cells and 8 µg of **ab199431** [EPR16786]. ChIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads.
Additional screenshots of mapped reads can be downloaded **here**.
This data was developed using **ab199431**, the same antibody clone in a different buffer formulation.



Anti-HNF-4-alpha antibody [EPR16786] - BSA and Azide free (ab251275)

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