abcam

Product datasheet

Anti-VKORC1 antibody [EPR20245] ab206656

Recombinant RabMAb

2 References 9 Images

Overview

Product name	Anti-VKORC1 antibody [EPR20245]
Description	Rabbit monoclonal [EPR20245] to VKORC1
Host species	Rabbit
Specificity	This antibody is unsuitable for IHC in human.
Tested applications	**Suitable for:** WB, IP, IHC-P, ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human fetal kidney and fetal liver lysates; Mouse liver, lung and pancreas lysates; HepG2 and A549 whole cell lysates. IHC-P: Mouse liver tissue. ICC/IF: HepG2 and A549 cells. Flow Cyt (intra): HepG2 cells. IP: HepG2 whole cell lysate.
General notes	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 short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR20245
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab206656 in the following tested applications.

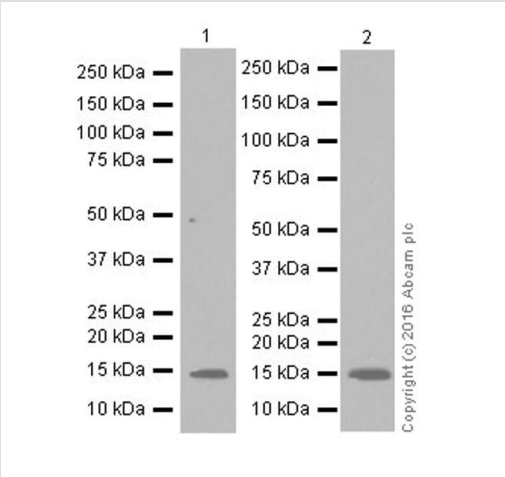
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 15 kDa (predicted molecular weight: 18 kDa).
IP		1/30.
IHC-P		1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. This antibody is unsuitable for IHC in human
ICC/IF		1/100.
Flow Cyt (Intra)		1/60.

Target

Function	Involved in vitamin K metabolism. Catalytic subunit of the vitamin K epoxide reductase (VKOR) complex which reduces inactive vitamin K 2,3-epoxide to active vitamin K.
Tissue specificity	Expressed at highest levels in fetal and adult liver, followed by fetal heart, kidney, and lung, adult heart, and pancreas.
Involvement in disease	Defects in VKORC1 are a cause of combined deficiency of vitamin K-dependent clotting factors type 2 (VKCFD2) [MIM:607473]. VKCFD leads to a bleeding tendency that is usually reversed by oral administration of vitamin K. Defects in VKORC1 are a cause of coumarin resistance (CMRES) [MIM:122700]; also known as warfarin resistance. Warfarin and other coumarin-type anticoagulants are used to reduce blood viscosity in the treatment of thromboembolic disorders.
Sequence similarities	Belongs to the VKOR family.
Cellular localization	Endoplasmic reticulum membrane.

Images



Western blot - Anti-VKORC1 antibody [EPR20245] (ab206656)

All lanes : Anti-VKORC1 antibody [EPR20245] (ab206656) at 1/1000 dilution

Lane 1 : Human fetal kidney lysate
Lane 2 : Human fetal liver lysate

Lysates/proteins at 10 µg per lane.

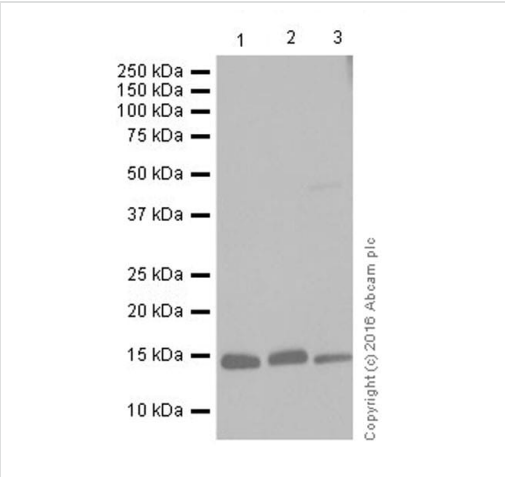
Secondary
All lanes : Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 18 kDa
Observed band size: 15 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: *25753038*).



Western blot - Anti-VKORC1 antibody [EPR20245] (ab206656)

All lanes : Anti-VKORC1 antibody [EPR20245] (ab206656) at 1/1000 dilution

Lane 1 : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate
Lane 2 : A549 (Human lung carcinoma cell line) whole cell lysate
Lane 3 : Mouse liver lysate

Lysates/proteins at 20 µg per lane.

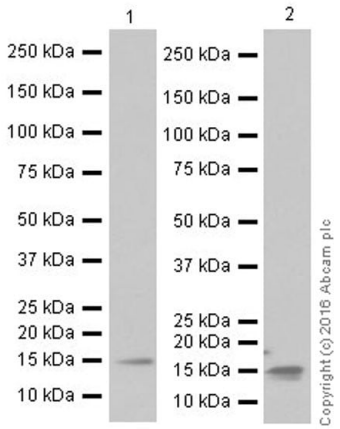
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 18 kDa

Observed band size: 15 kDa

Exposure time: 8 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot - Anti-VKORC1 antibody [EPR20245] (ab206656)

All lanes : Anti-VKORC1 antibody [EPR20245] (ab206656) at 1/1000 dilution

Lane 1 : Mouse lung lysate
Lane 2 : Mouse pancreas lysate

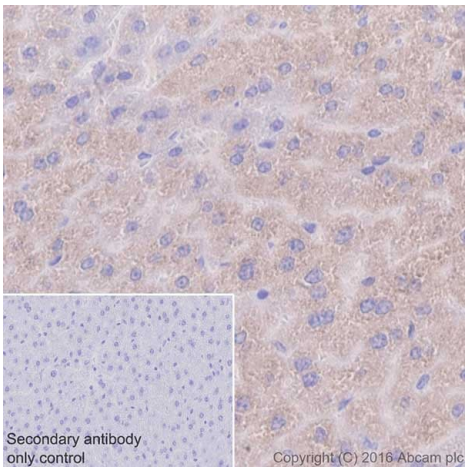
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 18 kDa
Observed band size: 15 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

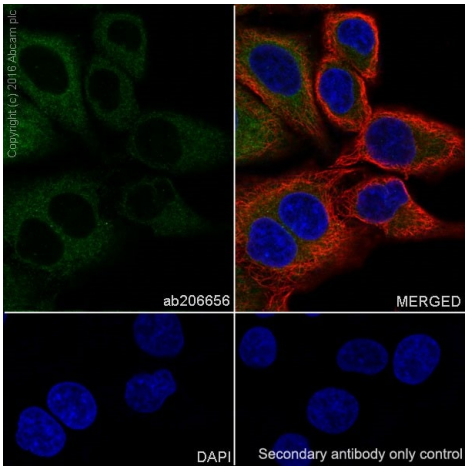


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VKORC1 antibody [EPR20245] (ab206656)

Immunohistochemical analysis of paraffin-embedded mouse liver tissue labeling VKORC1 with ab206656 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Cytoplasmic staining on hepatocytes of mouse liver is observed [PMID: 25747820] [PMID:14765194]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

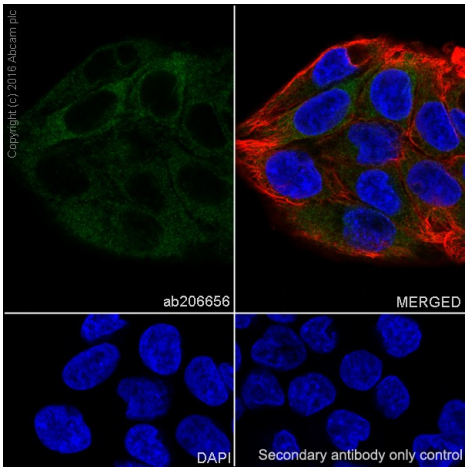


Immunocytochemistry/ Immunofluorescence - Anti-VKORC1 antibody [EPR20245] (ab206656)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A549 (Human lung carcinoma cell line) cells labeling VKORC1 with ab206656 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on A549 cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with **ab195889** (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) at 1/1000 dilution.

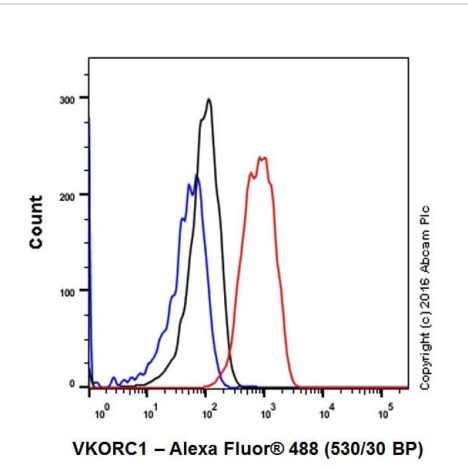


Immunocytochemistry/ Immunofluorescence - Anti-VKORC1 antibody [EPR20245] (ab206656)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (Human liver hepatocellular carcinoma cell line) cells labeling VKORC1 with ab206656 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on HepG2 cell line.

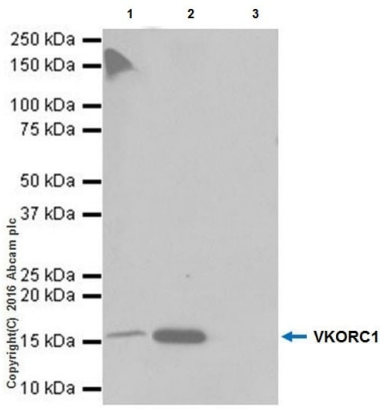
The nuclear counter stain is DAPI (blue). Tubulin is detected with **ab195889** (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-VKORC1 antibody [EPR20245] (ab206656)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HepG2 (Human liver hepatocellular carcinoma cell line) cells labeling VKORC1 with ab206656 at 1/60 dilution (red) compared with a rabbit monoclonal IgG isotype control (**ab172730**; black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluorr® 488) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-VKORC1 antibody [EPR20245] (ab206656)

VKORC1 was immunoprecipitated from 0.35 mg of HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate with ab206656 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab206656 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: HepG2 whole cell lysate, 10 µg (Input).

Lane 2: ab206656 IP in HepG2 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab206656 in HepG2 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 30 seconds.

Anti-VKORC1 antibody [EPR20245] (ab206656)

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