

VKORC1 Antibody

Catalog # ASC11468

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9BQB6
Other Accession	NP_076869 , 13124770
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	18235
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	VKORC1 antibody can be used for detection of VKORC1 by Western blot at 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 5 μ g/mL.

Additional Information

Gene ID	79001
Other Names	Vitamin K epoxide reductase complex subunit 1, 1.1.4.1, Vitamin K1 2, 3-epoxide reductase subunit 1, VKORC1, VKOR
Target/Specificity	VKORC1;
Reconstitution & Storage	VKORC1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	VKORC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	VKORC1 {ECO:0000303 PubMed:14765194, ECO:0000312 HGNC:HGNC:23663}
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. Vitamin K is required for the gamma-carboxylation of various proteins, including clotting factors, and is required for normal blood coagulation, but also for normal bone development.
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein

Tissue Location

Expressed at highest levels in fetal and adult liver, followed by fetal heart, kidney, and lung, adult heart, and pancreas.

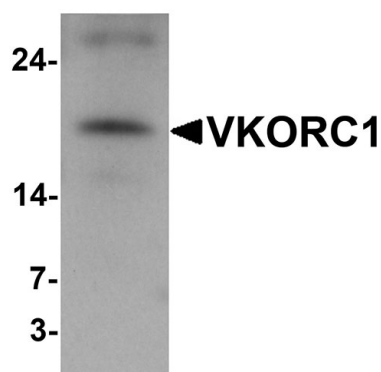
Background

VKORC1 Antibody: Vitamin K epoxide reductase complex subunit 1 (VKORC1) is the enzyme that is responsible for reducing vitamin K 2,3-epoxide to the enzymatically activated form which is essential for blood clotting. This enzymatically activated form of vitamin K is a reduced form required for the carboxylation of glutamic acid residues in some blood-clotting proteins. Fatal bleeding can be caused by vitamin K deficiency and by the vitamin K antagonist warfarin, and it is VKORC1 that is sensitive to warfarin. In humans, mutations in this gene can be associated with deficiencies in vitamin-K-dependent clotting factors and, in humans and rats, with warfarin resistance.

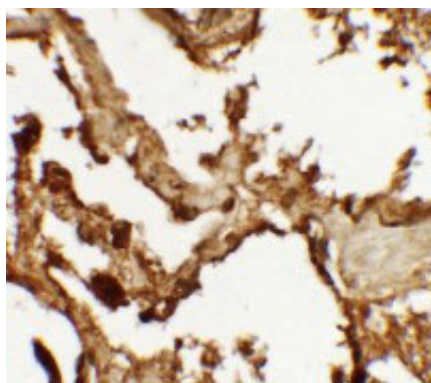
References

Oldenburg J, Bevans CG, Muller CR, et al. Vitamin K epoxide reductase complex subunit 1 (VKORC1): the key protein of the vitamin K cycle. *Antioxid. Redox Signal.* 2006; 8:347-53.
Rost S, Fregin A, Ivaskevicius V, et al. Mutations in VKORC1 cause warfarin resistance and multiple coagulation factor deficiency type 2. *Nature* 2004; 427:537-41

Images

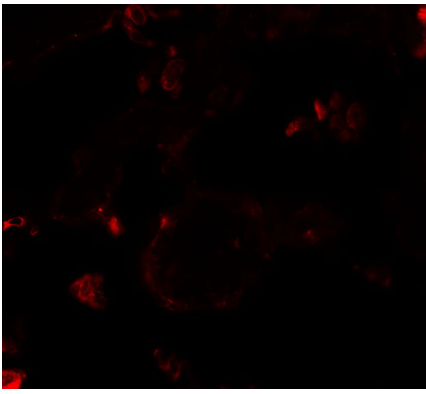


Western blot analysis of VKORC1 in A549 cell lysate with VKORC1 antibody at 1 µg/mL.



Immunohistochemistry of VKORC1 in human lung tissue with VKORC1 antibody at 2.5 µg/mL.

Immunofluorescence of VKORC1 in human lung tissue with VKORC1 antibody at 20 µg/mL.



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