

**VKORC1 Antibody**  
**Catalog # ASC11468****Specification**

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**VKORC1 Antibody - Product Information**

|                   |                                                                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application       | WB, IHC-P, IF, E                                                                                                                                                                                   |
| Primary Accession | <a href="#">Q9BQB6</a>                                                                                                                                                                             |
| Other Accession   | <a href="#">NP_076869</a> , <a href="#">13124770</a>                                                                                                                                               |
| Reactivity        | Human, Mouse                                                                                                                                                                                       |
| Host              | Rabbit                                                                                                                                                                                             |
| Clonality         | Polyclonal                                                                                                                                                                                         |
| Isotype           | IgG                                                                                                                                                                                                |
| Application Notes | VKORC1 antibody can be used for detection of VKORC1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 5 µg/mL. |

**VKORC1 Antibody - Additional Information**

|                           |       |
|---------------------------|-------|
| Gene ID                   | 79001 |
| <b>Target/Specificity</b> |       |
| 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.

**VKORC1 Antibody - 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

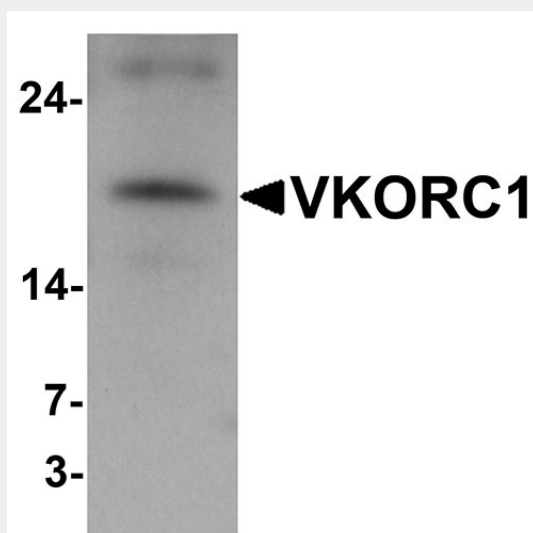
heart, and pancreas.

### **VKORC1 Antibody - Protocols**

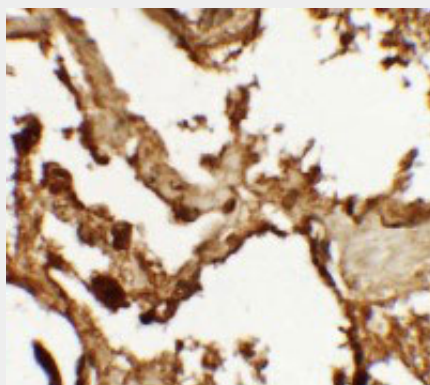
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

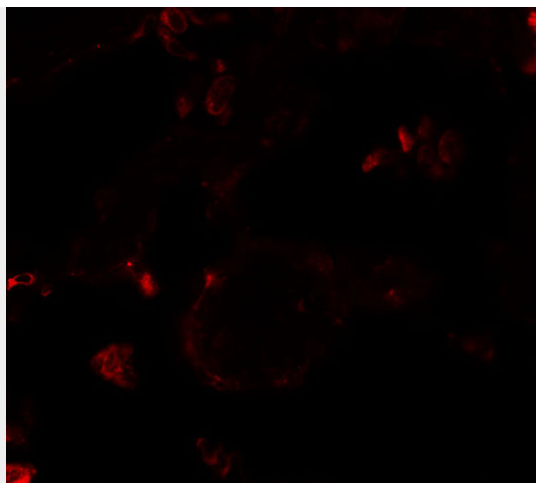
### **VKORC1 Antibody - Images**



Western blot analysis of VKORC1 in A549 cell lysate with VKORC1 antibody at 1  $\mu$ g/mL.



Immunohistochemistry of VKORC1 in human lung tissue with VKORC1 antibody at 2.5  $\mu$ g/mL.



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

### **VKORC1 Antibody - 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.

### **VKORC1 Antibody - References**

Oldenburg J, Bevens 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