

Rat Vitamin K1 (VK1) ELISA Kit

Catalog No: #EK5856



Package Size: #EK5856-1 48T #EK5856-2 96T

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Description

Product Name	Rat Vitamin K1 (VK1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Rat (<i>Rattus norvegicus</i>)
Other Names	Phylloquinone; Phytonadione; Phytomenadione
Storage	<p>The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.</p> <p>The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).</p>

Application Details

Detect Range:123.5-10000 pg/mL

Sensitivity:49.3 pg/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:Sandwich Test principle:This assay employs a two-site sandwich ELISA to quantitate VK1 in samples. An antibody specific for VK1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyVK1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for VK1 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of VK1 bound in the initial step. The color development is stopped and the intensity of the color is measured.

Product Overview:Vitamin K is essential for blood clotting but must be enzymatically activated. This enzymatically activated form of vitamin K is a reduced form required for the carboxylation of glutamic acid residues in some blood-clotting proteins. VKORC1 is responsible for reducing vitamin K 2,3-epoxide to the enzymatically activated form. Fatal bleeding can be caused by vitamin K deficiency and by the vitamin K antagonist warfarin, and it is the product of this gene 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. Two pseudogenes have been identified on chromosome 1 and the X chromosome. Two alternatively spliced transcripts encoding different isoforms have been described.

Note: This product is for in vitro research use only