# abcam

# Product datasheet

# Factor IXa Activity Assay Kit (Fluorometric) ab204727

### 1 References 2 图像

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产**品名称** Factor IXa Activity Assay试剂盒(Fluorometric)

检测方法 Fluorescent

样品类型 Serum, Plasma, Purified protein

检测类型 Enzyme activity

产品概述 Factor IXa Activity Assay Kit (Fluorometric) (ab204727) is based on the ability of FIXa to

generate FXa. The generated FXa proteolytically cleaves a synthetic substrate and releases a fluorophore, AMC, which can be easily quantified by fluorescence microplate reader. The assay is

simple, rapid and can detect activity as low as 10 pg of FIXa in a variety of samples.

说明 This product is manufactured by BioVision, an Abcam company and was previously called K364

Factor IXa Activity Assay Kit (Fluorometric). K364-100 is the same size as the 100 test size of

ab204727.

The coagulation Factor IX (or Christmas factor, EC 3.4.21.22) is a vitamin K-dependent serine protease. Factor IX is produced as an inactive precursor and is activated via cleavage by either factor XIa (contact pathway) or factor VIIa (tissue factor pathway). In the presence of calcium ions and negatively charged membrane phospholipids, activated factor IX (FIXa) then binds to the activated Factor VIII (FVIIIa) and proteolytically activates factor X (FX) to factor Xa (FXa).

平台 Microplate reader

#### 性能

存放说明 Store at -20°C. Please refer to protocols.

组 <b>件</b>	100 tests
Active Factor VIIIa	1 vial
Assay Buffer XLIV	1 x 15ml
Enzyme Mix XXII	1 vial
FIXa Enzyme Standard	1 x 10ng
FXa Substrate	1 x 200µl

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组 <b>件</b>	100 tests
Phospholipid Mixture	1 x 600µl

功能 Factor IX is a vitamin K-dependent plasma protein that participates in the intrinsic pathway of

blood coagulation by converting factor X to its active form in the presence of Ca(2+) ions,

phospholipids, and factor VIIIa.

组织**特异性** Synthesized primarily in the liver and secreted in plasma.

疾病相关 Defects in F9 are the cause of recessive X-linked hemophilia B (HEMB) [MIM:306900]; also

known as Christmas disease.

Note=Mutations in position 43 (Oxford-3, San Dimas) and 46 (Cambridge) prevents cleavage of the propertide, mutation in position 93 (Alabama) probably fails to bind to cell membranes, mutation in position 191 (Chapel-Hill) or in position 226 (Nagoya OR Hilo) prevent cleavage of the

activation peptide.

Defects in F9 are the cause of thrombophilia due to factor IX defect (THR-FIX) [MIM:300807]. A

hemostatic disorder characterized by a tendency to thrombosis.

**序列相似性** Belongs to the peptidase S1 family.

Contains 2 EGF-like domains.

Contains 1 Gla (gamma-carboxy-glutamate) domain.

Contains 1 peptidase S1 domain.

结**构域** Calcium binds to the gamma-carboxyglutamic acid (Gla) residues and, with stronger affinity, to

another site, beyond the Gla domain.

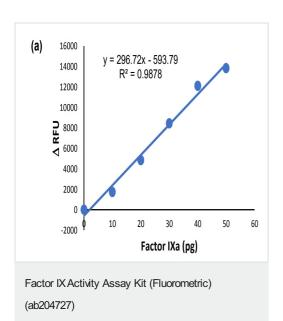
翻译后修饰 Activated by factor XIa, which excises the activation peptide.

The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R)

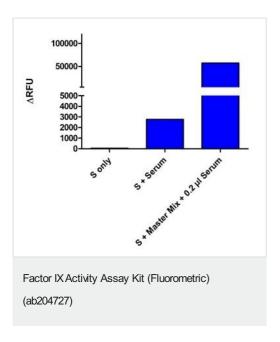
stereospecific within EGF domains.

细胞定位 Secreted.

## 图片



Typical Factor IXa Standard Curve.



Factor IXa activity was measured in serum samples in the presence and absence of the master mix. S: Substrate

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