Product name:	Factor IX Rabbit Polyclonal Antibody
Cat number:	ABN10785
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from Factor IX at AA range: 412-461
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,ELISA 1:10000-1:20000
Molecular Weight:	52kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes vitamin K-dependent coagulation factor IX that circulates in the blood as an inactive zymogen. This factor is converted to an active form by factor XIa, which excises the activation peptide and thus generates a heavy chain and a light chain held together by one or more disulfide bonds. The role of this activated factor IX in the blood coagulation cascade is to activate factor X to its active form through interactions with Ca+2 ions, membrane phospholipids, and factor VIII. Alterations of this gene, including point mutations, insertions and deletions, cause factor IX deficiency, which is a recessive X-linked disorder, also called hemophilia B or Christmas disease. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Sep 2015],catalytic activity:Selective cleavage of Arg-|-Ile bond in factor X to form factor Xa.,disease:Defects in F9 are the cause of recessive X-linked hemophilia B (HEMB) [MIM:306900]; also known as Christmas disease.,disease:Mutations in position 43 (Oxford-3, San Dimas) and 46 (Cambridge) prevents cleavage of the propeptide, 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.,domain:Calcium binds to the gamma-carboxyglutamic acid (Gla) residues and, with stronger affinity, to another site, beyond the Gla domain.,function: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.,miscellaneous:In 1952, one of the earliest researchers of the disease, Dr. R.G. Macfarlane used the patient's surname, Christmas, to refer to the disease and also to refer to the clotting factor which he called the 'Christmas Factor' At the time Stephen Christmas was a 5-year-old boy. He died in 1993 at the age of 46 from acquired immunodeficiency syndrome contracted through treatment with blood products.,online information:Clinical information on BeneFix,online information:Factor IX entry,online information:Hemophilia B mutation database,online information:The Christmas Factor -Issue 41 of December 2003,pharmaceutical:Available under the names BeneFix (Baxter and American Home Products). Used to treat hemophilia B.,PTM:Activated by factor XIa, which excises the activation peptide.,PTM:The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.,similarity:Belongs to the peptidase S1 family.,similarity:Contains 1 Gla (gamma-carboxy-glutamate) domain.,similarity:Contains 1 peptidase S1 domain.,similarity:Contains 2 EGF-like domains.,subunit:Heterodimer of a light chain and a heavy chain; disulfide-linked.,tissue specificity:Synthesized primarily in the liver and secreted in plasma.,