

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Coagulation Factor VII in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Factor X, rhFactor XI, rhPROC, rhThrombin, rhKallikrein 1, 2, 3, 4, 5, 6, 7, 8, 9,
Source	Monoclonal Rat IgG _{2A} Clone # 406707
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human mouse Coagulation Factor VII Ala42-Leu446 Accession # P70375
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Coagulation Factors VII and VIIa refer to the pro and active forms of the same protease, respectively (1). Factor VII is synthesized in the liver and circulates in the plasma where it binds to tissue factor (TF), an integral membrane protein found in a variety of cell types. Upon binding of TF, factor VII is rapidly converted into VIIa. The resulting 1:1 complex of VIIa and TF initiates the coagulation pathway and has also important coagulation-independent functions such as angiogenesis (2). The cleavage and activation of Coagulation Factors VII, IX and X by VIIa:TF is phospholipid-dependent whereas the cleavage of small peptide substrates is not (1). The deduced amino acid sequence of mouse factor VII predicts a signal peptide (residues 1 to 24), propeptide (residues 25 to 41), and the mature chain that can be further processed into the light chain (residues 42 to 193) and the heavy chain (residues 194 to 446). The amino acid sequence of mouse Factor VII is 89%, 71%, 65% and 55% identical to that of rat, human/dog, chimpanzee and chicken.

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