

## Product datasheet

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# ARG42853 anti-Factor VII antibody

Package: 100 μl Store at: -20°C

## **Summary**

Product Description Rabbit Polyclonal antibody recognizes Factor VII

Tested Reactivity Hu, Ms

Tested Application IHC-P, WB

Host Rabbit

**Clonality** Polyclonal

Isotype IgG

Target Name Factor VII

Species Human

Immunogen Fusion protein of Human Factor VII.

Conjugation Un-conjugated

Alternate Names Eptacog alfa; Coagulation factor VII; SPCA; Serum prothrombin conversion accelerator; EC 3.4.21.21;

Proconvertin

## **Application Instructions**

Application table	Application	Dilution
	IHC-P	1:25 - 1:100
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	WB: NIH/3T3, 293T and Jurkat IHC-P: Human lung cancer and Human thyroid cancer	
Observed Size	~ 50 kDa	

## **Properties**

Form Liquid

Purification Affinity purification with immunogen.

Buffer PBS (pH 7.4), 0.05% Sodium azide and 40% Glycerol.

Preservative 0.05% Sodium azide

Stabilizer 40% Glycerol

Concentration 0.4 mg/ml

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

#### Bioinformation

Gene Symbol

F7

Gene Full Name

coagulation factor VII (serum prothrombin conversion accelerator)

Background

This gene encodes coagulation factor VII which is a vitamin K-dependent factor essential for hemostasis. This factor circulates in the blood in a zymogen form, and is converted to an active form by either factor IXa, factor Xa, factor XIIa, or thrombin by minor proteolysis. Upon activation of the factor VII, a heavy chain containing a catalytic domain and a light chain containing 2 EGF-like domains are generated, and two chains are held together by a disulfide bond. In the presence of factor III and calcium ions, the activated factor then further activates the coagulation cascade by converting factor IX to factor IXa and/or factor X to factor Xa. Defects in this gene can cause coagulopathy. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar proteolytic processing to generate mature polypeptides. [provided by RefSeq, Aug 2015]

Function

Initiates the extrinsic pathway of blood coagulation. Serine protease that circulates in the blood in a zymogen form. Factor VII is converted to factor VIIa by factor Xa, factor XIIa, factor IXa, or thrombin by minor proteolysis. In the presence of tissue factor and calcium ions, factor VIIa then converts factor X to factor Xa by limited proteolysis. Factor VIIa will also convert factor IX to factor IXa in the presence of tissue factor and calcium. [UniProt]

Calculated Mw

52 kDa

PTM

The vitamin K-dependent, enzymatic carboxylation of some glutamate residues allows the modified protein to bind calcium.

The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.

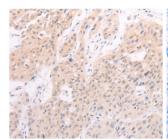
O- and N-glycosylated. N-glycosylation at Asn-205 occurs cotranslationally and is mediated by STT3A-containing complexes, while glycosylation at Asn-382 is post-translational and is mediated STT3B-containing complexes before folding. O-fucosylated by POFUT1 on a conserved serine or threonine residue found in the consensus sequence C2-X(4,5)-[S/T]-C3 of EGF domains, where C2 and C3 are the second and third conserved cysteines.

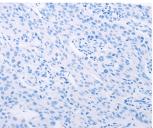
Can be either O-glucosylated or O-xylosylated at Ser-112 by POGLUT1 in vitro. [UniProt]

Cellular Localization

Secreted. [UniProt]

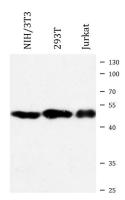
#### **Images**





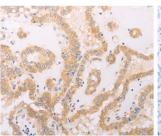
## ARG42853 anti-Factor VII antibody IHC-P image

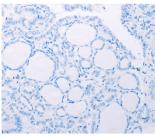
Immunohistochemistry: Paraffin-embedded Human lung cancer tissue stained with ARG42853 anti-Factor VII antibody (left) at 1:40 dilution, or the same antibody pre-incubated with fusion protein (right). (Original magnification: X200).



## ARG42853 anti-Factor VII antibody WB image

Western blot: 40  $\mu g$  of NIH/3T3, 293T and Jurkat cell lysates stained with ARG42853 anti-Factor VII antibody at 1:400 dilution.





## ARG42853 anti-Factor VII antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human thyroid cancer tissue stained with ARG42853 anti-Factor VII antibody (left) at 1:40 dilution, or the same antibody pre-incubated with fusion protein (right). (Original magnification: X200).