

Human Factor V monoclonal antibody (3B1)

Catalog PODI-0080

Lot 27026

Product specification sheet PS-PAb0080

Product description

Human blood coagulation Factor V is a plasma protein with little procoagulant activity. Limited proteolysis at Arg⁷⁰⁹, Arg¹⁰¹⁸, and Arg¹⁵⁴⁵ by thrombin or Factor Xa results in the generation of activated Factor Va, which serves as a cofactor of Factor Xa in prothrombin activation. Monoclonal antibody 3B1 recognizes both Factor V as Factor Va and binds to the heavy chain. 3B1 is suitable for ELISA and Western blot assays and was used to isolate Factor Va after activation by thrombin of Factor Xa by monoclonal 3B1 antibody affinity chromatography.

| | |
|----------------------|---------------------------------------|
| Product type: | Primary antibodies |
| Clone number: | 3B1 |
| Immunogen: | Purified human coagulation Factor V |
| Reacts with: | Human Factor V, Factor Va heavy chain |
| Tested applications: | ELISA, WB, IHC |
| Purity: | Protein G affinity purified, >95% |
| Isotype: | IgG1 |
| Light chain type: | Kappa |
| Storage buffer: | PBS |
| Form: | Liquid |
| Concentration: | 1.0 mg/ml |

Storage and stability

Store at 4 °C, short term (1-2 weeks). For long-term storage, aliquot and keep at or below -20° C. Avoid repeated freeze-thaw cycles

References

Hackeng TM, Hessing M, van 't Veer C, Meijer-Huizinga F, Meijers JCM, de Groot PG, van Mourik JA, Bouma BN. Protein S binding to human endothelial cells is required for expression of cofactor activity for activated protein C. *JBC*. 1993; 268:3993-4000.

Heeb MJ, Rehemtulla A, Moussalli M, Kojima Y, Kaufman RJ. Importance of individual activated protein C cleavage site regions in coagulation Factor V for Factor Va inactivation and for Factor Xa activation. *Eur. J. Biochem* 1999; 260: 64-75.

Gale AJ, Yegneswaran S, Xu X, Pellequer JL, Griffin JH. Characterization of Factor Xa binding site on Factor Va near the Arg-506 activated protein C cleavage site. *JBC* 2007; 282: 21848-21855.

Segers K, Dahlback B, Bock PE, Tans G, Rosing J, Nicolaes GAF. The role of thrombin exosites I and II in the activation of human coagulation factor V. *JBC* 2007; 282: 33915-33924.

Duckers C, Simioni P, Spiezia L, Radu C, Gavasso S, Rosing J, Castoldi E. Low plasma levels of tissue factor pathway inhibitor in patients with congenital factor V deficiency. *Blood* 2008; 112: 3615-3623.

Duckers C, Simioni P, Spiezia L, Radu C, Dabrilii P, Gavasso S, Rosing J, Castoldi E. Residual platelet factor V ensures thrombin generation in patients with severe congenital factor V deficiency and mild bleeding symptoms. *Blood* 2010; 115: 4-16

Castoldi E., Duckers C, Radu C, Spiezia L, Rosetto V, Tagarielo G, Rosing J, Simioni P. Homozygous F5 deep-intronic splicing mutation resulting in severe factor V deficiency and undetectable thrombin generation in platelet-rich plasma. *J Thrombosis Haemostasis* 2011; 9: 959-968.

Von Drygalski A, Bhat V, Gale AJ, Burnier L, Cramer TJ, Griffin JH, Mosnier LO. An engineered Factor Va prevents bleeding induced by anticoagulant wt activated protein C. *PLOS One* 2014; DOI: 10.1371

PRODUCT USE LIMITATIONS, WARRANTY, DISCLAIMER

U-Protein Express BV products contain chemicals which may be harmful if misused. Due care should be exercised with all U-Protein Express BV products to prevent direct human contact. All products are intended For Research Use Only and ARE NOT ALLOWED FOR USE IN HUMANS. Each U-Protein Express BV product is shipped with documentation stating specifications and other technical information. U-Protein Express BV products are warranted to meet or exceed the stated specifications. U-Protein Express BV's sole obligation and the customer's sole remedy is limited to replacement of products free of charge in the event products fail to perform as warranted. U-Protein Express BV makes no other warranty of any kind whatsoever, and SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES OF ANY KIND OR NATURE WHATSOEVER, DIRECTLY OR INDIRECTLY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, AS TO THE SUITABILITY, PRODUCTIVITY, DURABILITY, FITNESS FOR A PARTICULAR PURPOSE OR USE, MERCHANTABILITY, CONDITION, OR ANY OTHER MATTER WITH RESPECT TO U-Protein Express BV PRODUCTS. In no event shall U-Protein Express BV be liable for claims for any other damages, whether direct, incidental, foreseeable, consequential, or special (including but not limited to loss of use, revenue or profit), whether based upon warranty, contract, tort (including negligence) or strict liability arising in connection with the sale or the failure of U-Protein Express BV products to perform in accordance with the stated specifications.