

Monoclonal antibody against human Factor VIII

Product No. ADGESH-4

Description

The monoclonal antibody (clone ESH-4) is directed against human factor VIII:C. Mice were immunized with purified human factor VIII:C cryoprecipitate. Hybridomas were created by fusion of the immunized spleen cells with NS-1 murine myeloma cell lines.

Properties

The antibody (subclass IgG_{2a}) is directed against the light chain, aa: 2303-2332, phospholipid binding site on C-terminus.

The cross-reactivity was tested via IRMA, in comparison with human plasma (100%): the antibody does not cross react with Pig, Dog, Guinea Pig, and Cat, the antibody does cross-react with Rabbit (145%) and Baboon (112%).

Presentation

Screw capped vial containing 0.5 mg of purified antibody in PBS, pH 7.2, 0.1 % ProClin. The IgG concentration is 1 mg/ml. Spin the vial briefly before opening.

Storage and Stability

Store the antibody at 2°-8°C. For long-term storage the antibody should be aliquoted and stored at -20°C or colder. It is recommended to avoid freeze-thaw cycles.

Applications

A. Immunopurification / Immunodepletion The antibody binds factor VIII:C from plasma when covalently coupled to gels ⁽¹⁾.

B. Immunofluorescence Microscopy

The antibody is useful for immunofluorescence ⁽³⁾.

C. Inhibitor

Clot inhibition was tested by incubation for 2 hrs at 37°C. 89% inhibition at 3 µg/mL (highest conc. tested). Recombinant human factor VIII binding to vWF is inhibited at about 3 µg/mL (Per Dr. E. Saenko, ARC, Rockville, MD).

The antibody inhibits FVIIIa binding to platelets ^(5,6), platelet-dependent factor Xase activity is inhibited 70% to 85% by the antibody ⁽⁶⁾.

The antibody is conformation dependent and is not useful for Western blotting.

Warnings and Precautions

Contains: Mixture of: 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) and Modified alkyl carboxylate (ProClin® 300)

Hazard pictograms

Signal word  **Warning**

Hazard statements

H317 - May cause an allergic skin reaction.

Precautionary statements

P280 - Wear protective gloves.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention.

P362 - Take off contaminated clothing and wash before reuse.

P501 - Dispose of contents/container in accordance with local/regional/ national/international regulations.

References

1. The production and characterisation of a panel of ten murine monoclonal antibodies to human procoagulant factor VIII. Griffin, B. D., *et al. Thromb Haemost*, 1986; **55**: 40-46.
2. Development, optimization and use of an enzyme linked immunosorbent assay (ELISA) to measure factor VIII antigen utilizing monoclonal antibodies. Hornsey, V. S., *et al. Transf Med*, 1992; **2**: 223-229.
3. In vivo production of human factor VII in mice after intrasplenic implantation of primary fibroblasts transfected by receptor-mediated, adenovirus-augmented gene delivery. Zatloukal, K., *et al. Proc Nat Acad Science USA*, 1994; **91**: 5148-5152.
4. Some factor VIII inhibitor antibodies recognize a common epitope corresponding to C2 domain amino acids 2248 through 2312, which overlap a phospholipid-binding site. Scandella, D., *et al. Blood*, 1995; **86**: 1811-1819.
5. Role of the C2 domain of factor VIIIa in the assembly of factor-X activating complex on the platelet membrane. Ahmad SS, and Walsh PN. *Biochem*, 2005; **44**(42):13858-13865.
6. Platelet binding sites for factor VIII in relation to fibrin and phosphatidylserine. Gilbert GE *et al.*, *Blood*. 2015; **126**(10):1237-1244.

Hinweis/Note:

Der Packungsbeileger dient nur als erste Information. Der relevante Packungsbeileger liegt der Ware bei.

The datasheet is for information purposes only. The current datasheet will be enclosed with product shipment.

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