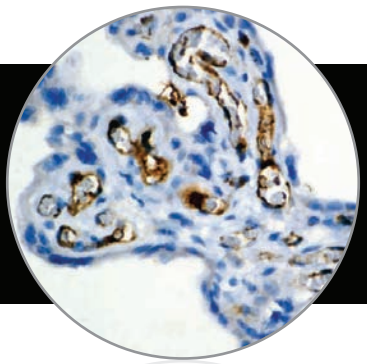
Bio SB
BIO SCIENCE FOR THE WORLD



Factor VIII

IHC of Factor VIII on an FFPE Placenta Tissue

Description

Factor VIII (F VIII) is an essential clotting factor. The lack of normal F VIII causes Hemophilia A, an inherited bleeding disorder. FVIII is a glycoprotein procofactor synthesized and released into the bloodstream by the liver. In the circulating blood, it is mainly bound to von Willebrand factor (vWF, also known as Factor VIII-related antigen) to form a stable complex. Upon activation by thrombin or Factor Xa, it dissociates from the complex to interact with Factor IXa, the coagulation cascade. It is a cofactor to Factor IXa in the activation of Factor X, which, in turn, with its cofactor Factor Va, activates more thrombin. Thrombin cleaves fibrinogen into fibrin which polymerizes and crosslinks (using Factor XIII) into a blood clot.

This antibody reacts with endothelial cells in normal, reactive, and neoplastic blood cells. F VIII antibody has helped to establish the endothelial nature of some lesions of disputed histogenesis, e.g., Kaposi`s Sarcoma and Cardiac Myxoma. Not all endothelial cells synthesize (or store) this molecule; therefore, it should not be surprising that not all tumors of endothelial differentiation (benign or malignant) react with this antigen.

Antibody Type	Rabbit Polyclonal	**Clone**	N/A
Isotype	N/A	**Reactivity**	Paraffin, Frozen
Localization	Cytoplasmic	**Control**	Skin, Placenta
Storage	Store at 2°-8°C	**Stability**	2 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as **ImmunoDetector Protein Block/Antibody Diluent** (BSB 0040 and BSB 0041) or **ImmunoDNA Background Blocker** (BSB 0103-BSB 0107).

Presentation

Factor VIII antibody is a purified immunoglobulin fraction of rabbit antiserum, diluted in phosphate buffered saline, pH 7.6, with protein, and preserved with sodium azide.

Availability

Catalog No.	Antibody Type	Dilution	Volume/QTY
BSB 5498	Prediluted	Ready-To-Use	3.0 ml
BSB 5499	Prediluted	Ready-To-Use	7.0 ml
BSB 5500	Prediluted	Ready-To-Use	15.0 ml
BSB 5501	Concentrated	1:50-1:250	0.1 ml
BSB 5502	Concentrated	1:50-1:250	0.5 ml
BSB 5503	Concentrated	1:50-1:250	1.0 ml
BSB 5504	Control Slides		5

Note: For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

References

1. Wick MR, et al. *Lab Invest.* 1985;52:75A
2. Bhawan J, et al. *Cancer.* 1985;55:570-576
3. Ansell J, et al. *Cancer.* 1982;50:1506-1512
4. Fullin KH, et al. *Cancer.* 1983;51:1107-1118

Protocol

Suggested protocol on reverse

Recommended Immunohistochemical Protocol

Pretreatment

1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as **ImmunoDNA Retriever with Citrate** (BSB 0020-BSB 0023) or **EDTA** (BSB 0030-BSB 0033).
5. Any of three heating methods may be used:
   a. **Electric Pressure Cooker**
   Place standoff rack at base of pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high, and incubate for 15 minutes. Open and immediately transfer slides to room temperature.
   b. **Water Bath Method**
   Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a water bath set at 95°-99° C. Incubate for 30-60 minutes.
   c. **Conventional Steamer Method**
   Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a Steamer, cover and steam for 30-60 minutes.
6. After heat treatment, transfer slides in **ImmunoDNA Retriever with Citrate** or **EDTA** to room temperature and let stand for 15-20 minutes.
7. Wash slides with IHC wash buffer or DI water.
8. Continue IHC staining protocol.

Immunohistochemical Protocol

Step	ImmunoDetector (AP or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

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69 Santa Felicia Dr., Santa Barbara, CA 93117, USA
Tel: (805) 692-2768 | Tel: (800) 561-1145 | Fax: (805) 692-2769
E-mail: info@biosb.com | Website: www.biosb.com