Native Human FBb protein

Cat. No. FBb-16H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Native Human FBb was purified from Normal Human serum.
Species	Human
Source	Human Serum
Description	Factor Bb is the fragment of complement factor B that results from activation of the alternative pathway. The Bb fragment is made from factor B which was purified from normal human serum. Complement factor B is a glycosylated protein composed of a single 93,000 Da polypeptide chain. It is an essential component of the alternative pathway of complement activation and is found in plasma at approximately 200 g/mL. In the presence of Mg++ factor B binds to C3b and the C3b,B complex can be activated by factor D, a serine protease that circulates as an active trypsin-like serine protease. Cleavage of factor B by factor D causes the release of the Ba fragment (33,000 Da) and leaves the 60,000 Bb fragment bound to C3b. This Bb subunit comes from the C-terminal of factor B and it contains the proteolytic active site of the serine protease C3b,Bb (Morley, B.J. and Walport, M.J. (2000)). C3b,Bb is called a C3 and a C5 convertase because it converts both of these proteins to their active forms by cleaving off the small peptides C3a and C5a, respectively (Morikis, D. and Lambris, J.D. (2005); Morley, B.J. and Walport, M.J. (2000)). C3b,Bb is an unstable trypsin-like serine protease with a half-life of approximately 90 seconds. In the presence of factors that accelerate decay (factor H, DAF, and CR1) it is dissociated is seconds. This releases the fragment Bb into solution. Once released from C3b the Bb fragment is no longer active in complement and lacks a typical serine protease active

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	site.
Form	Phosphate-buffered saline, pH 7.3
Molecular Mass	60,000 Da (single chain)
Purity	>95% by SDS-PAGE
Notes	This protein is purified from human serum and therefore precautions appropriate for handling any blood-derived product must be used even though the source was shown by certified tests to be negative for HBsAg, HTLV-I/II, STS, and for antibodies to HCV, HIV-1 and HIV-II.
Storage	Store at -70 centigrade or below. Avoid repeated freeze/thaw.
Concentration	1.0 mg/mL
Preservative	None, 0.22 μm filtered

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