

## Native Human Factor Ba protein

Cat. No. FBa-12H    Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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| Product Overview | Native Human Factor Ba was purified from normal human serum.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Species          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Source           | Human Serum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Description      | <p>Factor Ba is the fragment of complement factor B that results from activation of the alternative pathway. CompTech prepares the factor Ba fragment 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. Factor B 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<sup>++</sup> 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 Ba fragment comes from the N-terminal of factor B and it contains three CCP domains which interact with C3b (Morley, B.J. and Walport, M.J. (2000)). The isolated fragment Ba has been reported to have a weak affinity for C3b and to inhibit the interaction of factor B with C3b thus inhibiting the activation of the alternative pathway (Prydzial, E.L. and Isenman, D.E., (1987)). The fragments of factor B (Ba and Bb) have been proposed to elicit numerous biological responses; however, many of these activities have proved to be controversial with an inconsistent record of reproducibility. It is not yet clear whether these failures are due to different experimental conditions, more highly purified Ba and Bb than available in the early</p> |

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days or the need to test fresh, in situ-prepared fragments, as has been suggested.

|                       |                                                                                                                                                                                                                                                                                |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Form</b>           | Phosphate-buffered saline, pH 7.3                                                                                                                                                                                                                                              |
| <b>Molecular Mass</b> | 33,000 Da (single chain)                                                                                                                                                                                                                                                       |
| <b>Purity</b>         | >95% by SDS-PAGE                                                                                                                                                                                                                                                               |
| <b>Notes</b>          | 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. |
| <b>Storage</b>        | Store at -70 centigrade or below. Avoid repeated freeze/thaw.                                                                                                                                                                                                                  |
| <b>Concentration</b>  | 1.0 mg/mL                                                                                                                                                                                                                                                                      |
| <b>Preservative</b>   | None, 0.22 µm filtered                                                                                                                                                                                                                                                         |

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