

## Crystallization grade recombinant complement Factor B

Life Sciences Incubator  
Yalelaan 62  
3584 CM Utrecht  
The Netherlands

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Lot 1671

### Product description

Complement factor B is a component of the alternative pathway of complement activation. Factor B circulates in the blood as a single chain polypeptide. Upon activation of the alternative pathway, it is cleaved by complement factor D yielding the noncatalytic chain Ba and the catalytic subunit Bb. The active subunit Bb is a serine protease which associates with C3b to form the alternative pathway C3 convertase. Bb is involved in the proliferation of preactivated B lymphocytes, while Ba inhibits their proliferation.

The cDNA coding for Factor B was cloned and expressed in HEK293EBNA1 cells that are deficient in an enzyme that is involved in N-linked glycosylation of glycoproteins. As a result, recombinant factor B produced from this cell line contains N-linked glycans of the short and simple  $\text{man}_5\text{-GlcNAc}_2$  type. Therefore, this factor B is extremely suitable for protein crystallization experiments. Factor B is purified to homogeneity, see figure 1. It contains an N-terminal hexahistidine tag. Each vial contains 400  $\mu\text{g}$  factor B at a concentration of 16 mg/ml.

### Storage and stability

Factor B should be stored at  $-80^\circ\text{C}$  (stable for at least 1 year). The buffer contains 25 mM Tris 150 mM NaCl pH 7.5 without preservative. After thawing it should be stored in appropriate small aliquots at  $-20^\circ\text{C}$  or  $-80^\circ\text{C}$  (stable for at least 2 months).

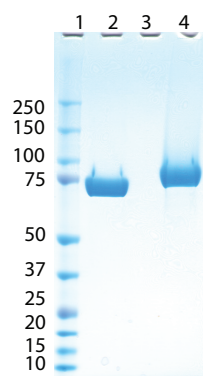


Figure 1. NuPage analysis at 1 mg/ml  
Lane 1: marker  
Lane 2: Factor B, non reduced  
Lane 4: Factor B, reduced

### Reference

Factor B structure provides insights into activation of the central protease of the complement system, F.J. Milder, L. Gomes, A. Schouten, B.J.C. Janssen, E.G. Huizinga, R.A. Romijn, W. Hemrika, A. Roos, M.R. Daha and P. Gros, *Nature Structural & Molecular Biology*, 14, 224 - 228

### Production platform:

This product has been produced in HEK293 cells using the rPEX<sup>®</sup> recombinant protein production platform.

### PRODUCT USE LIMITATIONS, WARRANTY, DISCLAIMER

The product is not for use in humans

The product can only be used for internal research and development

The product can not be used in any commercial activity (commercial use includes, but is not limited to, 1) preparation of growth media with the purpose of sale, 2) R&D activities for third parties)

The product can not be resold.

Please contact [bd@immunoprecise.com](mailto:bd@immunoprecise.com) to inquire about further information.

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