

Carbohydrate Binding Module 63A, *Bacillus subtilis* (GFP-CBM63)

Catalogue number	Presentation
CZ00891	1 mg
CZ00892	3 x 1 mg

Description

Carbohydrate Binding Module 63A (GFP-CBM63) is a Carbohydrate Binding Protein originating from *Bacillus subtilis*. The recombinant GFP-CBM63, purified from *Escherichia coli*, is a modular protein belonging to the Carbohydrate Binding Module family 63 (CBM63, see more details at www.cazy.org) fused to an N-terminal Green Fluorescent Protein (GFP). This GFP protein derivative is particularly recommended for subcellular localization studies, which allows for real-time tracking and imaging in living cells. The protein is supplied in a solution containing 35 mM NaHepes buffer (pH 7.5), 750 mM NaCl, 200 mM Imidazole, 3.5 mM CaCl₂ and 3.2 M ammonium sulphate, at a concentration of 1 mg/mL. Bulk quantities of this product can be made available upon request. To place an order, simply visit our website. We offer fast and secure shipping worldwide.

Electrophoretic Purity

The molecular integrity and purity of GFP-CBM63 were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).

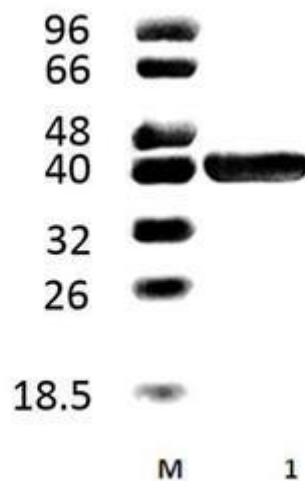


Figure 1. SDS-PAGE analysis of GFP-CBM63 was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 40,45 kDa. Lane M contains a Protein Marker for reference.

Storage temperature

The protein should be stored at 2°C to 8°C in a constant temperature freezer. The protein will remain stable till the expiry date if stored as specified.

Ligand specificity

GFP-CBM63 binds to crystalline forms of cellulose. The protein is a bacterial expansin that promotes root colonization. The biochemical properties of GFP-CBM63 are detailed in the referenced publication(s) provided below.

Assay conditions

For optimal recovery of GFP-CBM63 activity, carry out the following procedure: centrifuge the necessary volume of the precipitated protein suspension at 13,000 x g for a duration of 5 minutes. Subsequently, decant the ammonium sulphate supernatant and resuspend the resultant pellet in an equivalent volume of solution, comprising 20 mM Tris-HCl (pH 7.5), 20 mM NaCl, and 5 mM CaCl₂. Following resuspension, proceed to the appropriate assay as dictated by your experimental requirements.

Reference

Kerff *et al.* (2008) Proc Natl Acad Sci U S A. 105, 16876-16881.

Georgelis *et al.* (2012) Proc Natl Acad Sci U S A. 109, 14830-14835.

Pires *et al.* (2017) J Biol Chem. 292(12): 4847–4860.

Customer Support

Our dedicated customer support team is always ready to assist you with any questions or technical issues you may have. Reach us via email at info@nzytech.com.

Quality control assay

Protein purity is determined to be ≥90%, as assessed by SDS-PAGE and subsequent BlueSafe staining (MB15201).

For life science research only. Not for use in diagnostic procedures.

NZYtech Lda. Estrada do Paço do Lumiar, Campus do Lumiar - Edifício E, R/C, 1649-038 Lisboa, Portugal Tel.: +351.213643514 Fax: +351.217151168 www.nzytech.com