CZ0084_UG_EN_V2302

Carbohydrate Binding Module 3A, *Clostridium acetobutylicum* (GFP-CBM3)

Catalogue number	Presentation
CZ00841	1 mg
CZ00842	3 x 1 mg

Description

Carbohydrate Binding Module 3A (GFP-CBM3) is a Carbohydrate Binding Protein originating from *Clostridium acetobutylicum*. The recombinant GFP-CBM3, purified from *Escherichia coli*, is a modular protein belonging to the Carbohydrate Binding Module family 3 (CBM3, 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 $CaCl_2$ 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-CBM3 were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).

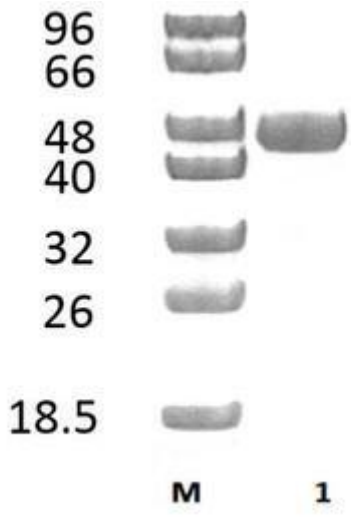

Figure 1. SDS-PAGE analysis of GFP-CBM3 was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 46,79 kDa. Lane M contains a Protein Marker for reference.

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-CBM3 binds to crystalline forms of cellulose. The biochemical properties of GFP-CBM3 are detailed in the referenced publication(s) provided below.

Assay conditions

For optimal recovery of GFP-CBM3 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

Cai *et al*. (2011) J Bacteriol. 193(19): 5199–5206.

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).