

## Carbohydrate Binding Module 30B, *Clostridium thermocellum*

### (GFP-CBM30)

Catalogue number	Presentation
CZ02861	1 mg
CZ02862	3 x 1 mg

#### Description

Carbohydrate Binding Module 30B (GFP-CBM30) is a Carbohydrate Binding Protein originating from *Clostridium thermocellum*. The recombinant GFP-CBM30, purified from *Escherichia coli*, is a modular protein belonging to the Carbohydrate Binding Module family 30 (CBM30, see more details at [www.cazy.org](http://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<sub>2</sub> 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-CBM30 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-CBM30 was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 50,67 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-CBM30 binds to 1,3-1,4- $\beta$ -glucans and soluble undecorated (cellulose) and decorated (xyloglucan) 1,4- $\beta$ -glucans. The biochemical properties of GFP-CBM30 are detailed in the referenced publication(s) provided below.

## Assay conditions

For optimal recovery of GFP-CBM30 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 CaCl<sub>2</sub>. Following resuspension, proceed to the appropriate assay as dictated by your experimental requirements.

## Reference

Najmudin *et al.* (2006) *J. Biol. Chem.* 281, 8815-8828.

PDB/3D code: 1WMX, 1WZX, 2C26.

## 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](mailto:info@nzytech.com).

## Quality control assay

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

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