

## Malto-oligosyltrehalose trehalohydrolase 13A, *Sulfolobus solfataricus*

### SsTrz13A (CBM48-GH13)

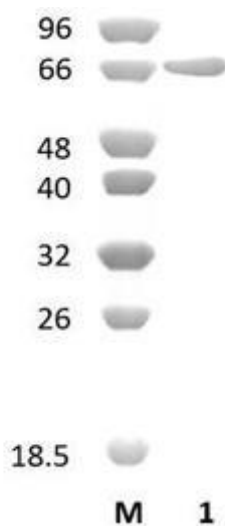
| Catalogue number | Presentation |
|------------------|--------------|
| CZ07651          | 0.25 mg      |
| CZ07652          | 3 x 0.25 mg  |

#### Description

Malto-oligosyltrehalose trehalohydrolase 13A (SsTrz13A), assigned the E.C. number 3.2.1.141, is a derivative of *Sulfolobus solfataricus*. It is an enzyme that participates in the hydrolysis of 1,4- $\alpha$ -D-glucosidic linkage in 4- $\alpha$ -D-(1,4- $\alpha$ -D-glucanosyl)(n) trehalose to yield trehalose and 1,4- $\alpha$ -D-glucan. The recombinant SsTrz13A, purified from *Escherichia coli*, is a modular Glycoside Hydrolase family 13 (CBM48-GH13) enzyme (see more details at [www.cazy.org](http://www.cazy.org)). The protein is supplied in a solution containing 35 mM NaHepes buffer (pH 7.5), 750 mM NaCl, 200 mM Imidazole, 3.5 mM  $\text{CaCl}_2$ , and 25% (v/v) glycerol, at a concentration of 0.25 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 SsTrz13A (CBM48-GH13) were evaluated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE), followed by BlueSafe staining (MB15201) (Figure 1).



**Figure 1.** SDS-PAGE analysis of SsTrz13A (CBM48-GH13) was conducted in (Lane 1), employing a 14% polyacrylamide gel. The enzyme exhibits a band corresponding to a molecular weight of approximately 66,33 kDa. Lane M contains a Protein Marker for reference.

#### Storage temperature

The protein should be stored at -30°C to -15°C in a constant temperature freezer. The protein will remain stable till the expiry date if stored as specified.

#### Substrate specificity

SsTrz13A (CBM48-GH13) hydrolyses maltooligosyltrehalose.

#### Temperature and pH optima

The pH optimum for enzymatic activity is 5 while temperature optimum is 80 °C.

## Enzyme activity

The substrate specificity and kinetic properties of SsTrz13A (CBM48-GH13) are detailed in the referenced publication provided below. To perform enzyme assays and determine specific activity values, adhere to the methodology outlined in the cited paper(s).

## Reference

Fang *et al.* (2008) J Agric Food Chem. 56(14):5628-33.

## 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  $\geq 75\%$ , 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](http://www.nzytech.com)