

## Recombinant beta-Glucosyltransferase protein

**Catalog No:** 81249, 81949

**Expressed In:** *E. coli*

**Quantity:** 100, 1000 µg

**Concentration:** 1.1 µg/µl

**Source:** Escherichia virus T4

**Buffer Contents:** Recombinant beta-Glucosyltransferase protein is supplied in 25 mM Tris-HCl pH 8.0, 300 mM NaCl, 10% glycerol, and 0.5 mM TCEP.

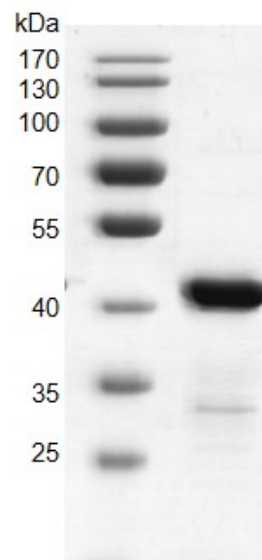
**Background:** Beta-Glucosyltransferase, also called as β-Glucosyltransferase or BGT, is a DNA-modifying enzyme. It is encoded by a number of bacteriophages belonging to the T-even group. It catalyses the transfer of glucose (Glc) from uridine diphosphoglucose (UDP-Glc) to 5-hydroxymethylcytosine (5-HMC) in double-stranded DNA. BGT shows little DNA sequence specificity but modify only 5-HMC bases. The glucosylation protects the infecting viral DNA from host nucleases. In addition to its protective role, the glucosylation has also been implicated in the control of phage-specific gene expression by influencing transcription in vivo and in vitro. The reaction is: UDP-Glc + 5-HMC-DNA → β-glucosyl- HMC-DNA + UDP.

**Protein Details:** Beta-Glucosyltransferase was expressed in *E. coli* cells as the full length protein (accession number NP\_049658.1) with an N-terminal 6×His tag. The molecular weight of beta-Glucosyltransferase protein is 42.8 kDa.

**Application Notes:** Recombinant beta-Glucosyltransferase protein is useful for the study of glucosyltransferase assays in vitro.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



**Recombinant beta-Glucosyltransferase protein**

10% SDS-PAGE gel with Coomassie Blue staining

MW: 42.8 kDa

Purity: ≥90%