# Recombinant *E. coli* beta Galactosidase protein ab7981

## Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Recombinant <em>E. coli</em> beta Galactosidase protein</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein length</td>
<td>Full length protein</td>
</tr>
</tbody>
</table>

## Description

<table>
<thead>
<tr>
<th>Nature</th>
<th>Recombinant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Escherichia coli</td>
</tr>
</tbody>
</table>

## Amino Acid Sequence

<table>
<thead>
<tr>
<th>Species</th>
<th>Escherichia coli</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular weight</td>
<td>465 kDa</td>
</tr>
</tbody>
</table>

**Additional sequence information**

Beta Galactosidase is a homotetramer with a molecular weight of 465.4 kDa (116.3 kDa subunits each).

## Specifications

Our **Abpromise guarantee** covers the use of *ab7981* in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

### Biological activity

One Unit hydrolyzes one micromole of o-nitrophenyl-β-D-galactopyranoside per minute at 25°C, pH 7.5.

Activity: ≥50 units per mg dry weight.

Optimum pH range of 6 to 8.

## Form

Lyophilised

## Preparation and Storage

### Stability and Storage

Shipped at 4°C. Store at +4°C.

This product is an active protein and may elicit a biological response in vivo, handle with caution.

### Reconstitution

Reconstitute in 0.1 M Sodium/potassium phosphate, pH 7.0.
Beta galactosidase is coded by a gene (lac z) in the lac operon of Escherichia coli. It is a metalloenzyme that splits lactose into glucose and galactose. It hydrolyzes terminal, non-reducing beta-D-galactose residues in beta-D-galactosides. Activation by cations seems to be substrate dependent. K+, Na+, NH4+, Rb+, Cs+ and Mn++ all activate enzyme activity based upon the substrate used.

**Cellular localization**

Cytoplasmic

---

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

---

**Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [http://www.abcam.com/abpromise](http://www.abcam.com/abpromise) or contact our technical team.

---

**Terms and conditions**

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors