# Recombinant Thermobifida fusca Cutinase Protein (His Tag)

Catalog Number: PKSQ050088



Note: Centrifuge before opening to ensure complete recovery of vial contents.

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Species Thermobifida fusca

Mol\_Mass 29.5 kDa Accession E5BBQ3

**Bio-activity** Not validated for activity

#### **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin**  $< 1.0 \text{ EU per } \mu\text{g}$  of the protein as determined by the LAL method.

Storage Storage Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

**Shipping** This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel

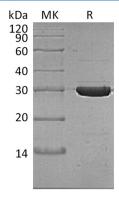
packs. Upon receipt, store it immediately at < - 20°C.

Formulation Supplied as a 0.2 μm filtered solution of 20mM HAc-NaAc, 50% Glycerol, 5%

Mannitol, 0.02% Tween 80, pH4.5.

**Reconstitution** Not Applicable

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Cutinase belongs to the family of hydrolases, specifically those acting on carboxylic ester bonds. The systematic name of this enzyme class is cutin hydrolase. Cutinase is a serine esterase containing the classical Ser, His, Asp triad of serine hydrolases. The protein belongs to the alpha-beta class, with a central beta-sheet of 5 parallel strands covered by 5 helices on either side of the sheet. Cutin monomers released from the cuticle by small amounts of cutinase on fungal spore surfaces can greatly increase the amount of cutinase secreted by the spore. The active site cleft is partly covered by 2 thin bridges formed by amino acid side chains, by contrast with the hydrophobic lid possessed by other lipases. The protein also contains 2 disulfide bridges, which are essential for activity, their cleavage resulting in complete loss of enzymatic activity.

## For Research Use Only