

Recombinant *Thermobifida fusca* Cutinase Protein (His Tag)

Catalog No. PKSQ050088

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

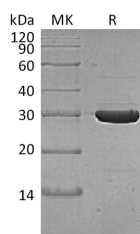
Description

Synonyms	Cutinase
Species	<i>Thermobifida fusca</i>
Expression Host	E.coli
Sequence	Ala1-Phe261
Accession	E5BBQ3
Calculated Molecular Weight	29.5 kDa
Observed molecular weight	28-30 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
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

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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.