Recombinant Thermobifida fusca Cutinase Protein (His Tag)

Catalog Number: PKSQ050088

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

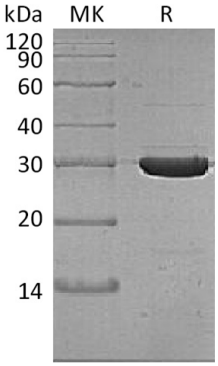
Description

Species	Thermobifida fusca
Source	E.coli-derived Thermobifida fusca Cutinase/cut2 protein Ala1-Phe261, with an C-terminal His
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 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 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.