Proteins





Product Data Sheet

AMCase/CHIA Protein, Human (HEK293, His)

Cat. No.: HY-P77869

Synonyms: Acidic mammalian chitinase; AMCase; CHIA; CHIT2; EC 3.2.1.14; Chia1; YNL

Species: HEK293 Source:

Accession: Q9BZP6 (Y22-A476)

Gene ID: 27159 Molecular Weight: 55-60 kDa

PROPERTIES	
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μ m filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The AMCase/CHIA protein functions as an enzyme that degrades chitin and chitotriose, suggesting its involvement in defense mechanisms against nematodes, fungi, and other pathogens. Additionally, AMCase/CHIA plays a role in T-helper cell type 2 (Th2) immune response and contributes to the response to IL-13, as well as inflammation induced by IL-13. It stimulates the production of chemokines by pulmonary epithelial cells, showcasing its influence on immune and inflammatory responses. Moreover, AMCase/CHIA is implicated in the protection of lung epithelial cells against apoptosis, promoting the phosphorylation of AKT1. Notably, the protein's function in the inflammatory response and cell protection against apoptosis is inhibited by allosamidin, suggesting a dependency on carbohydrate binding for its proper functioning. The diverse roles of AMCase/CHIA underscore its significance in immune defense, inflammation, and cellular homeostasis.

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