

IdeS Protein, Streptococcus pyogenes (N-His)

Cat. No.:	HY-P74867A
Synonyms:	Immunoglobulin-degrading enzyme; ideS
Species:	Others
Source:	E. coli
Accession:	F8V4V0 (D30-N341)
Gene ID:	/
Molecular Weight:	Approximately 34 kDa

PROPERTIES

AA Sequence	<p> D S F S A N Q E I R Y S E V T P Y H V T S V W T K G V T P P A K F T Q G E D V F H A P Y V A N Q G W Y D I T K T F N G K D D L L C G A A T A G N M L H W W F D Q N K E K I E A Y L K K H P D K Q K I M F G D Q E L L D V R K V I N T K G D Q T N S E L F N Y F R D K A F P G L S A R R I G V M P D L V L D M F I N G Y Y L N V Y K T Q T T D V N R T Y Q E K D R R G G I F D A V F T R G D Q S K L L T S R H D F K E K N L K E I S D L I K K E L T E G K A L G L S H T Y A N V R I N H V I N L W G A D F D S N G N L K A I Y V T D S D S N A S I G M K K Y F V G V N S A G K V A I S A K E I K E D N I G A Q V L G L F T L S T G Q D S W N Q T N </p>
Biological Activity	<p>Measured by its ability to cleave human IgG. The DC₅₀ is 49.93 ng, as measured under the described conditions. The DC₅₀ is defined as the amount of enzyme required to cleave 50% of 1 µg human IgG in 30 minutes at 37 °C. Use of Recombinant <i>S.pyogenes</i> IdeS in the cleavage of other IgGs may require alternative conditions for optimal performance.</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, 200 mM arginine, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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

IdeS is a highly specific IgG endopeptidase evolved from *Streptococcus pyogenes*, which can not only degrade IgG but also directly or indirectly inhibit the innate immune response, thus promoting the survival of streptococcus in the inflammatory environment. IdeS was found to be identical to Mac-1 in *Streptococcus*, a protein thought to inhibit phagocytosis by inhibiting the recognition of IgG and/or complement configurations by the Fc receptor (CD16). IdeS/Mac-1 can inhibit the function of certain neutrophil effectors, namely the production of reactive oxygen species (ROS), independently of IgG endopeptidase activity^{[1][2]}.

Caution: Product has not been fully validated for medical applications. For research use only.

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