

Endo S PRIME-LY™

Intended Use	<ul style="list-style-type: none"> • Endo-β-N-acetylglucosaminidase S (Endo S) cleaves the hydrolysis of the β(1-4) linkage between the two core GlcNAcs of asparagine linked biantennary complex-type glycans of IgG Fc regions. • This endoglycosidase only deglycosylates IgG glycoforms and plays a central role in glycoengineering strategies for the development of IgG antibodies with improved therapeutic efficacy.
Product Description	<ul style="list-style-type: none"> • Endo S PRIME-LY™ is a lyophilized recombinant endoglycosidase cloned from <i>Streptococcus pyogenes</i>. • Reconstituted Endo S PRIME-LY™ hydrolyzes the β(1-4) linkage between the core GlcNAc residues in the Fc-glycan leaving the innermost GlcNAc on the Fc. • The product contains 100µg of Endo S PRIME™ at 200 Units/µL, in a freeze-dried form.
Biological Source	<ul style="list-style-type: none"> • <i>E. coli</i>.
Concentration	<ul style="list-style-type: none"> • The standard Concentration is 200,000 Units/mL [1.0 mg/mL] after reconstituting in 100µL of dH₂O.
Physical Form	<ul style="list-style-type: none"> • Dry white powder.
Storage Instructions	<ul style="list-style-type: none"> • The Endo S PRIME-LY™ is supplied lyophilized, is shipped at ambient temperature, and may be stored at room temperature upon arrival with desiccant. • The product is reconstituted by adding dH₂O and vortexed. After reconstitution, the enzyme is stable for 6 months and should be stored at temperatures ranging from +2°C to -20°C.
Precautions	<ul style="list-style-type: none"> • After reconstitution, avoid multiple freeze-thaw cycles.
Usage	<ul style="list-style-type: none"> • Lyophilized enzyme is ready for use after reconstituting with dH₂O.
Quality Control Testing	<ul style="list-style-type: none"> • Reconstituted Endo S PRIME-LY™ passes release criteria which indicate its effectiveness in high-end applications like HPLC/UPLC and Mass Spectrometry Imaging. • Reconstituted Endo S PRIME-LY™ also passes release criteria determined by standard gel analysis as determined by SDS-PAGE. • Quality Certification is performed by a party independent from N-Zyme Scientifics, LLC.

TECHNICAL DATA	
Unit Definition Assay	<ul style="list-style-type: none"> Native human IgG (100µg) is incubated with reconstituted Endo S PRIME-LY™ for 60 minutes at 37°C, and then analyzed by SDS- PAGE. Fully glycosylated IgG heavy chain migrates at approximately 50kDa. Deglycosylation is assessed by the presence of deglycosylated IgG heavy chain with an apparent molecular weight of 47kDa following staining via Coomassie Brilliant Blue™.
High-End Testing Criteria	<ul style="list-style-type: none"> Reconstituted Endo S PRIME-LY™ is also designed for use in high-end applications and passes rigorous quality release criteria using HPLC/UPLC and Mass Spectrometry Imaging (MSI) of tissue samples. Native human IgG (10µg) is incubated with reconstituted Endo S PRIME-LY™ for one hour before glycan is labeled with the Waters RapiFluor-MS dye and analyzed by normal phase hydrophilic interaction chromatography (HILIC).
Purity	<ul style="list-style-type: none"> ≥95% for reconstituted Endo S PRIME-LY™ as determined by SDS-PAGE analysis and staining with Coomassie Brilliant Blue™.