IdeZ Protease (IgG-specific)

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P8010S 095150617061

P0770S

4,000 units **Lot: 0031512** **Exp: 12/17**
80,000 U/ml **Store at –20°C**

Description: IdeZ Protease (IgG-specific) is a recombinant antibody specific protease cloned from *Streptococcus equi* subspecies *zooepidemicus* that recognizes all human, sheep, monkey, and rabbit IgG subclasses, specifically cleaving at a single recognition site below the hinge region, yielding a homogenous pool of $F(ab')_2$ and Fc fragments. IdeZ Protease more effectively cleaves murine IgG2a than IdeS.

Cleavage Sites:
human IgG1, IgG3, IgG4: CPAPELLG▼GPSVF
human IgG2: CPAPPVA▼GPSVF
murine IgG2a: CPAPNLLG▼GPSVF
murine IgG3: CPPGNILG▼GPSVF

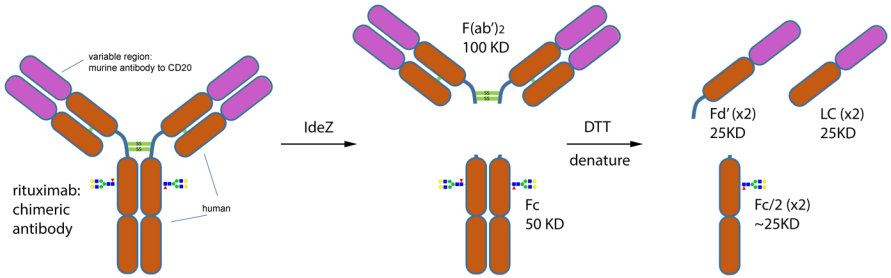
Source: Cloned from *Streptococcus equi* subspecies *zooepidemicus* and expressed in *E. coli*.

Supplied in: 20 mM Tris-HCl, 50 mM NaCl, 1 mM EDTA, pH 7.5 @ 25°C

Reagents Supplied with Enzyme:
10X GlycoBuffer 2

Unit Definition: One unit is defined as the amount of enzyme required to cleave > 95% of 1 µg of human IgG, in 15 minutes at 37°C in a total reaction volume of 10 µl.

Unit Definition Assay: Two fold dilutions of IdeZ Protease (IgG-specific) are incubated with 1 µg of human IgG and 1X GlycoBuffer 2 in a 10 µl reaction. The reaction mix is incubated for 15 minutes at 37°C. Separation of reaction products are visualized by SDS-PAGE.



Digestion of IgG with IdeZ Protease (IgG-specific), followed by denaturation.

Molecular Weight: 35,578 daltons

Quality Assurance: No contaminating non-specific proteolytic activity could be detected.

Quality Control Assays

Physical Purity: Purified to > 95% homogeneity as determined by SDS-PAGE analysis using Coomassie Blue detection

Protease Assay: After incubation of 800 units of IdeZ Protease (IgG-specific) with 24 µg of a standard mixture of proteins in a 20 µl reaction, for 20 hours at 37°C, no non-specific proteolytic activity could be detected by SDS-PAGE with Coomassie Blue Detection.

Heat Inactivation: 65°C for 10 minutes.

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CERTIFICATE OF ANALYSIS

Reaction Protocol:

The quantity of enzyme recommended is sufficient for the deglycosylation of 50 µg of IgG under non-denaturing conditions. Reactions may be scaled-up linearly to accommodate larger amounts of IgG. Optimal incubation times may vary for a particular substrate.

Typical Reaction Conditions are as Follows:

1. Combine up to 50 µg of human IgG and H_2O in a total reaction volume of 25 µl.
2. Add 2.5 µl of GlycoBuffer 2 (10X).
3. Add 1 µl of IdeZ Protease (IgG-specific).
4. Incubate at 37°C for 30 minutes.*
5. Prepare IgG sample for SDS-PAGE or mass spectrometry analysis.

***Note:** Extend incubation time to 2 hours for murine IgG2a.

Storage: Store at –20°C for up to two years. Avoid multiple freeze/thaw cycles.

Notes:

IdeZ Protease efficiently cleaves human, humanized, chimeric, sheep, rabbit and monkey IgG as well as mouse IgG2a and IgG3. IdeZ Protease will also cleave Fc-fusion proteins, such as Enbrel.

IdeZ Protease does not cleave mouse IgG1 or IgG2b, rat, porcine, bovine or goat IgG. It also does not cleave non-IgG isotypes including IgA, IgM, IgD and IgE.

Companion products

Rapid PNGase F Antibody Standard (P6043)

Rapid PNGase F (P0710)

Remove-iT® Endo S (P0741)

Trypsin-ultra™, Mass Spectrometry Grade (P8101)