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LEADGENE BIOMEDICAL, INC.

Product Information & Manual

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IdeS Protease

Cat no. LDG0039RG

Product Overview

Description

IdeS Protease is a highly specific cysteine protease derived from *Streptococcus pyogenes* that cleaves human IgG antibodies at a single site in the lower hinge region. This enzyme is essential for therapeutic antibody and Fc fusion protein characterization, enabling the rapid generation of homogenous F(ab')2 and Fc fragments for detailed analysis via mass spectrometry or chromatography.

Expression system

Escherichia coli

Unit definition

One unit is defined as the amount of enzyme required to cleave ≥ 95% of 1 µg recombinant human IgG in 30 minutes at 37°C.

Storage buffer

Lyophilized from 50 mM sodium phosphate, 150 mM NaCl, pH 6.6.

Reconstitution

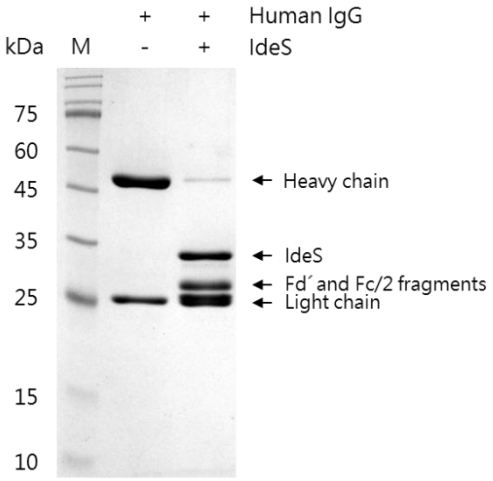
It is recommended to reconstitute the lyophilized protein by adding 36 µL of sterile H_2O to the 2500 U vial, or 357 µL of sterile H_2O to the 25 KU vial to a final concentration of 70 U/µL. Incubate the solution for at least 10 minutes to ensure sufficient re-dissolved.

Storage and Stability

This product is stable after storage at -20°C for 12 months in lyophilized state from date of receipt. Upon reconstitution, protein aliquots should be stored at 4°C.

Procedure

1. Prepare the antibody sample in a neutral reaction buffer (eg. 50 mM sodium phosphate, 150 mM NaCl, pH 6.6 or PBS, pH 7.4).
2. Add IdeS Protease to the sample at a ratio of 1 unit of enzyme per 1 µg of IgG antibody.
3. Gently mix the reaction and incubate at 37°C for 30-60 minutes.
4. Determine F(ab')2 and Fc fragments using SDS-PAGE analysis.



The standard assay was performed by incubating 2 units of IdeS Protease and 2 µg of recombinant human IgG under the above condition and analyzed by SDS-PAGE

Disclaimer

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