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Product Information

FabRICATOR® from *Streptococcus pyogenes* recombinant, expressed in *E. coli*

Catalog Numbers
07298 (2,000 units for cleaving 2 mg IgG)
77661 (5,000 units for cleaving 5 mg IgG)
Storage Temperature –20 °C

Synonyms: IdeS, Immunoglobulin degrading enzyme

Product Description
FabRICATOR® is a unique proteolytic enzyme that cleaves IgG just below the hinge region, thereby, generating an intact F(ab′)2 fragment and a Fc fragment. This enzyme is a modified cysteine protease first isolated from *Streptococcus pyogenes*. The scientific name of the enzyme is IdeS (immunoglobulin degrading enzyme), which has a biological role of circumventing the host defense.

This product is supplied as a lyophilized powder containing sodium phosphate, pH 6.6, and sodium chloride.

Purity: ≥95% (SDS-PAGE)

One unit is defined as the amount of enzyme required to fragment 95% of 1 μg of human IgG in 30 minutes at 37 °C, pH 6.6, as monitored by SDS-PAGE.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions
Reconstitute 07298 in 30 μl of ultrapure water and 77661 in 75 μl of ultrapure water to prepare a solution with a concentration of 67 units/μl. To prevent microbial contamination, sodium azide can be added to the solution to a final concentration of 0.02–0.05% (w/v). After reconstitution, a FabRICATOR solution retains activity for 1 month at 2–8 °C.

Storage/Stability
The product ships at ambient temperature and storage at –20 °C is recommended. When stored at –20 °C, the protein retains activity for at least 1 year.

Procedure
Add 1 unit of FabRICATOR per 1 μg of IgG for digestion in the recommended cleavage buffer of 50 mM sodium phosphate, pH 6.6, with 150 mM NaCl at 37 °C for 30 minutes. The recommended antibody concentration range is 0.5–10 mg/ml. The Fc fragments can be removed with protein A or protein G.

While optimal activity is obtained at pH 6.6 and 37 °C, it is possible to use a buffer with a higher pH and to increase the reaction time. Digestion can also be done at room temperature with prolonged incubation time.

References

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