FabDELLO™

FOR RESEARCH
USE ONLY

www.genovis.com

STORE CONTENT AT DIFFERENT TEMPERATURES
(See page 5)

SmartEnzymes™

GENOVIS

INSTRUCTIONS FOR PRODUCTS

FabDELLO 8×100 units (B1-BD1-008)
Digestion of up to 8 × 100 µg human IgG1 (8 well strip)

FabDELLO 96×100 units (B1-BD1-096)
Digestion of up to 96×100 µg human IgG1 (96 well plate)

Quick Guide

- The Quick Guide (p. 3) is intended for experienced users. First time users are recommended to follow the detailed protocol (p. 6).
- Cover the enzyme vial with adhesive plastic or move the reaction to a new vial during the incubation.

Last revised Dec 2021

Quick Guide

1 Add IgG

- **Add 100 µg IgG to the enzyme vial.**

2 Add Buffer and $CaCl_2$

- **Add TBS buffer to a total volume of 95 µl.**
- **Add 5 µl 20× $CaCl_2$ solution (200 mM).**

3 Digestion

- **Incubate for 2 h at 37°C.**

PRODUCT DESCRIPTION

FabDELLO is an enzyme that digests human IgG1, yielding intact Fab and Fc fragments. Under native conditions, FabDELLO digests human IgG1 at one single site in the upper hinge (..KSCDK / THTCPPCP..). A second digestion site on the Fc may appear if the N-glycans are removed. FabDELLO requires the presence of calcium ions to be active. Optimal activity is obtained at 37°C and pH 7-8.5.

FabDELLO is cloned from *Bdellovibrio bacteriovorus* and expressed in *E. coli.* The enzyme contains a His-tag and the molecular weight is 32 kDa.

Unit Definition

One unit FabDELLO digests ≥ 90% of 1 µg human IgG1, when incubated in Tris buffered saline (TBS), pH 7.6, containing 10 mM $CaCl_2$, at 37°C for 2 h.

Content and Storage

FabDELLO is supplied lyophilized in 50 mM Tris-HCl, 150 mM NaCl, pH 7.6, with no preservatives added. The enzyme is supplied together with 1 vial 20× $CaCl_2$ solution (200 mM). FabDELLO is shipped cold and the FabDELLO enzyme should be stored at -20°C upon arrival. The $CaCl_2$ solution should be stored at +4-8°C upon arrival. FabDELLO has autoproteolytic activity. Therefore, the enzyme should be kept cold and used within the day of reconstitution.

Additional Materials Required

- Digestion buffer: TBS (50 mM Tris-HCl, 150 mM NaCl), pH 7.6.

Sample Preparation

Prepare the human IgG1 in the digestion buffer. The final IgG concentration in the digestion reaction should be 0.5-5 mg/ml.

1 Add IgG

- Pierce the aluminium foil with a pipet tip.
- Add 100 µg IgG to the enzyme vial[1].

2 Add Buffer

- Add TBS buffer to a total volume of 95 µl[2,3].

3 Add $CaCl_2$

- Add 5 µl 20× $CaCl_2$ solution (200 mM)[4].

4 Digestion

- Mix the solution by aspirating and dispensing the liquid a few times.
- Cover the vial with adhesive plastic or move the content to another vial.
- Incubate for 2 h at 37°C[5].

Quality Control

FabDELLO is tested to meet the specifications and lot-to-lot consistency.

Related Products

FabALACTICA®
Above hinge digestion of human IgG1

Notes

1. *The enzyme may also be dissolved in ultrapure water and added to a digestion in another vial if digestion of smaller amounts of IgG is desired.*
2. *Optimal activity is achieved in TBS buffer pH 7-8.5. Buffers containing phosphate should be avoided since the phosphate ions will form the insoluble calcium phosphate salt together with the calcium ions required for enzymatic activity.*
3. *Another buffer volume may be added. The total volume in the enzyme vial should be 20-200 µl.*
4. *The final $CaCl_2$ concentration should be 10 mM. If the reaction volume is adjusted, the volume of the $CaCl_2$ solution must also be adjusted.*
5. *The digestion time may need to be optimized for individual antibodies.*

USA & Canada

Genovis Inc.
245 First Street, Suite 1800
Cambridge, MA 02142
USA

Customer service: 1-617-444-8421
Order phone (toll free): 1-855-782-0084
Order fax: 1-858-524-3006
Email: orders.us@genovis.com

EMEA & Asia

Genovis AB
Box 790
SE-220 07 Lund
Sweden

Customer service: +46 46 10 12 30
Order phone: +46 46 10 12 30
Order fax: +46 46 12 80 20
Email: order@genovis.com