SmartEnzymes™

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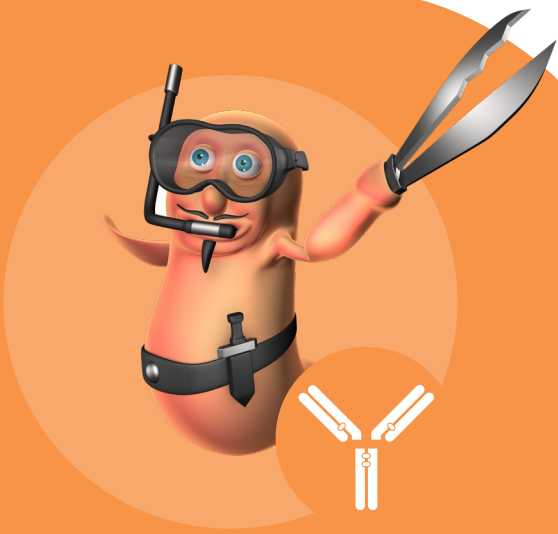

FabALACTICA®

Lyophilized

STORE AT
-20°C

FOR RESEARCH USE ONLY

Instructions for Use

FabALACTICA® Lyophilized 2000 units (A0-AG1-020)
Process 2 mg human IgG1

DOWNLOAD INSTRUCTIONS FOR USE
www.genovis.com/ifu-A0-AG1

Lyophilized Enzyme for Above Hinge Digestion of Human IgG1

FabALACTICA (IgdE) is a cysteine protease that digests human IgG1 at a specific site above the hinge, generating intact and homogenous Fab and Fc fragments. The digestion site on human IgG1 is …KSCDKT / HTCPPCP…

There is no risk of overdigestion if the incubation time is prolonged. Since FabALACTICA digests hIgG1 under physiological reaction conditions, the immunoreactivity is preserved. Optimal activity is obtained at pH 6.5 to 7.5 and at 37°C. Digestion can also be performed at room temperature with slightly lower yield than at 37°C.

FabALACTICA is derived from *Streptococcus agalactiae* and expressed in *E. coli.* The enzyme contains a His-tag and has a molecular weight of 70 kDa.

UNIT DEFINITION

One unit FabALACTICA Lyophilized digests ≥ 90 % of 1 µg human IgG1, when incubated in 150 mM sodium phosphate, pH 7.0 at 37°C overnight (16-18 hours).

CONTENT AND STORAGE

FabALACTICA Lyophilized is supplied lyophilized in 10 mM sodium phosphate, 137 mM NaCl, 2.7 mM KCl, pH 7.4, with no preservatives added.

FabALACTICA Lyophilized is shipped at ambient temperature and should be stored at -20°C upon arrival.

After reconstitution, FabALACTICA Lyophilized is stable for at least 1 month at +4-8°C.

FabALACTICA is for R&D use only.

QUALITY CONTROL

FabALACTICA Lyophilized is tested to meet the specifications and lot-to-lot consistency.

FabALACTICA Lyophilized is tested for absence of microbial contamination with blood agar plates, Sabouraud dextrose agar plates and fluid thioglycollate medium.

YOU MIGHT ALSO BE INTERESTED IN

FabALACTICA® Immobilized
Immobilized enzyme for above hinge digestion of human IgG1 in spin columns

FabALACTICA® Fab Kit
Immobilized enzyme and affinity resin for above hinge digestion of human IgG1 and purification of Fab fragments

FabRICATOR®
Below hinge digestion of IgG

Preparations

Additional Materials Required
To ensure efficient digestion, it is important to use the recommended digestion buffer:

- Digestion buffer: 150 mM sodium phosphate, pH 7.0.[1]

Sample Preparation
Prepare human IgG1 in the digestion buffer. The final IgG concentration in the digestion reaction should be 0.5-10 mg/ml.

1. Optimal activity is obtained in 100-150 mM sodium phosphate buffers at pH 6.5-7.5. Sodium chloride up to 150 mM can be added without affecting the enzyme activity.

Above Hinge Digestion of Human IgG1

1. Prepare FabALACTICA

1.1 Reconstitute FabALACTICA in 50 µl ddH_2O to a concentration of 40 units/µl.[2]

2. Add FabALACTICA

2.1 Add 1 unit FabALACTICA / 1 µg human IgG1.[3]

3. Digestion

3.1 Incubate overnight (16-18 h) at 37°C.[4]

2. To prevent microbial contamination, sodium azide can be added to the solution to a final concentration of 0.02-0.05% (w/v).
3. A higher enzyme concentration may increase digestion efficiency of individual antibodies. This requires optimization.
4. Shorter incubation times (i. e. 3-6 hours) may be used if a lower digestion yield is acceptable.

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