GENOVIS

GlySERIAS™

Lyophilized

STORE AT
-20°C

FOR RESEARCH USE ONLY

Instructions for Use

GlySERIAS™ Lyophilized 2000 units (A0-GS1-020)
Process 2 mg fusion protein

DOWNLOAD INSTRUCTIONS FOR USE
www.genovis.com/ifu-A0-GS1

Lyophilized Enzyme for Digestion of Fusion Proteins

GlySERIAS is a unique enzyme that digests flexible glycine-rich fusion protein linkers such as Gly_4Ser and Gly_xSer_y (GS), and polyglycine (G) linkers. The repetitive design of the linker will lead to several simultaneous digestion sites and separation of the previously linked components. Optimal activity occurs at 37°C, pH 7.6 under native conditions.

GlySERIAS is cloned from phage K and is recombinantly expressed in *E. coli.* The enzyme contains a His-tag and has a molecular weight of 18 kDa.

UNIT DEFINITION

One unit GlySERIAS Lyophilized digests ≥ 95% of 1 µg dulaglutide at a minimum of one site, when incubated in TBS (50 mM Tris-HCl, 150 mM NaCl, pH 7.6) at 37°C for 15 minutes.

CONTENT AND STORAGE

GlySERIAS Lyophilized is supplied lyophilized in 50 mM Tris-HCl, 150 mM NaCl, pH 7.6, with no preservatives added. GlySERIAS Lyophilized is shipped cold, and should be stored at -20°C upon arrival.

After reconstitution, the GlySERIAS enzyme is stable for at least 1 month at +4-8°C.

GlySERIAS is for R&D use only.

QUALITY CONTROL

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

GlySERIAS 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

FabRICATOR®
Below hinge digestion of IgG

FabALACTICA®
Above hinge digestion of human IgG1

FabDELLO™
Above hinge digestion of human IgG1, including IgG with mutated hinges

Digestion of Fusion Proteins

PREPARATIONS

Additional Materials Required

- Digestion buffer: TBS (50 mM Tris-HCl, 150 mM NaCl), pH 7.6.[1]

Sample Preparation

Prepare the fusion protein in the digestion buffer.
The final protein concentration in the digestion reaction should be 1-5 mg/ml.

1. Optimal activity is achieved using TBS, pH 7.6.
   The enzyme is active in pH 6.5-9.0 but the digestion efficiency may differ between different GS-linked proteins.

WORKFLOW

1. Prepare GlySERIAS

1.1 Reconstitute GlySERIAS in 50 µl ddH_2O to 40 units/µl.

2. Add GlySERIAS

2.1 Add 1 unit GlySERIAS / 1 µg fusion protein.[2]

3. Digestion

3.1 Incubate for 1 h at 37°C.[3,4]

2. A higher enzyme concentration may increase digestion efficiency of individual GS-linked proteins. This requires optimization.
3. A shorter incubation time will allow for a more complete coverage of linker sequence whereas a longer incubation time will reduce complexity and result in more homogeneous subunits.
4. The linker may not be completely removed from the GS-linked proteins.

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