SARS-CoV-2 Furin Cleavage Site Control

Contents

1. Description
   - 1.1 Background information
   - 1.2 Applications

1. Description

Products

SARS-CoV-2 Furin Cleavage Site Control-Biotin or SARS-CoV-2 Furin Cleavage Site Control FAM-Biotin.

Productname	Content	Order no.
SARS-CoV-2 Furin Cleavage Site Control-Biotin	100 µg	130-127-691
SARS-CoV-2 Furin Cleavage Site Control FAM-Biotin	100 µg	130-127-692

Primary structure

SARS-CoV-2 Furin Cleavage Site Control-Biotin:
Biotinylated synthetic peptide (21 amino acid residues), TFA salt.

SARS-CoV-2 Furin Cleavage Site Control FAM-Biotin:
Biotinylated synthetic peptide (22 amino acid residues), N-terminal FAM-labeled, TFA salt.

Molecular mass

SARS-CoV-2 Furin Cleavage Site Control-Biotin: 2.32 kDa.
SARS-CoV-2 Furin Cleavage Site Control FAM-Biotin: 2.81 kDa.

Source

Fully synthetic peptide.

Product format

Lyophilized peptide containing stabilizer.

Stabilizer

Mannitol.

Purity

>85% as determined by HPLC analysis.

Endotoxin level

Low endotoxin (<0.1 EU/µg protein) as determined by Limulus Amebocyte Lysate (LAL) assay.

Storage

Lyophilized SARS-CoV-2 Furin Cleavage Site Control should be stored at –20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at –20 °C or below. Avoid repeated freeze-thaw cycles.

Reconstitution

It is recommended to reconstitute lyophilized SARS-CoV-2 Furin Cleavage Site Control with deionized, sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 100 µL.

1.1 Background information

The ectodomain of the SARS-CoV-2 spike (S) glycoprotein consists of the N-terminal S1 subunit, including the receptor binding domain, and, the C-terminal S2 subunit. The junction connecting S1 with S2 contains the furin cleavage site at position R682–R685 (RRAR). Recent structural studies of the SARS-CoV-2 S protein showed that this part of the protein is solvent-exposed and disordered.
The SARS-CoV-2 Furin Cleavage Site Control peptide covers amino acids S673–S691 of the native SARS-CoV-2 S glycoprotein but contains a mutated Furin cleavage site (RRAR to GSAG substitution at residues 682–685). This substitution abolishes the cleaving activity of Furin proteases. The SARS-CoV-2 Furin Cleavage Site Control-Biotin is specifically biotinylated at the C-terminus. The SARS-CoV-2 Furin Cleavage Site Control FAM-Biotin contains an N-Terminal carboxyfluorescein label (FAM) for easy detection.

1.2 Applications

The product can be used for a variety of applications, including:

- Analysis of SARS-CoV-2 immune responses
- Studying Furin cleavage kinetics and Furin inhibitor activity

The optimal concentration for a specific application should be determined by a dose-response experiment.

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www.miltenyibiotec.com/local to find your nearest Miltenyi Biotec contact.

Legal notices

Limited product warranty

Miltenyi Biotec B.V. & Co. KG and/or its affiliate(s) warrant this product to be free from material defects in workmanship and materials and to conform substantially with Miltenyi Biotec's published specifications for the product at the time of order, under normal use and conditions in accordance with its applicable documentation, for a period beginning on the date of delivery of the product by Miltenyi Biotec or its authorized distributor and ending on the expiration date of the product's applicable shelf life stated on the product label, packaging or documentation (as applicable) or, in the absence thereof, ONE (1) YEAR from date of delivery ("Product Warranty"). Miltenyi Biotec's Product Warranty is provided subject to the warranty terms as set forth in Miltenyi Biotec's General Terms and Conditions for the Sale of Products and Services available on Miltenyi Biotec's website at www.miltenyibiotec.com, as in effect at the time of order ("Product Warranty"). Additional terms may apply. BY USE OF THIS PRODUCT, THE CUSTOMER AGREES TO BE BOUND BY THESE TERMS.

THE CUSTOMER IS SOLELY RESPONSIBLE FOR DETERMINING IF A PRODUCT IS SUITABLE FOR CUSTOMER'S PARTICULAR PURPOSE AND APPLICATION METHODS.

140-006-055.02

Miltenyi Biotec B.V. & Co. KG
Friedrich-Ebert-Straße 68, 51429 Bergisch Gladbach, Germany
Phone +49 2204 8306-0, Fax +49 2204 85197
macsde@miltenyi.com
www.miltenyibiotec.com

Technical information

The technical information, data, protocols, and other statements provided by Miltenyi Biotec in this document are based on information, tests, or experience which Miltenyi Biotec believes to be reliable, but the accuracy or completeness of such information is not guaranteed. Such technical information and data are intended for persons with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. Miltenyi Biotec shall not be liable for any technical or editorial errors or omissions contained herein.

All information and specifications are subject to change without prior notice. Please contact Miltenyi Biotec Technical Support or visit www.miltenyibiotec.com for the most up-to-date information on Miltenyi Biotec products.

Licenses

This product and/or its use may be covered by one or more pending or issued patents and/or may have certain limitations. Certain uses may be excluded by separate terms and conditions. Please contact your local Miltenyi Biotec representative or visit Miltenyi Biotec's website at www.miltenyibiotec.com for more information.

The purchase of this product conveys to the customer the non-transferable right to use the purchased amount of the product in research conducted by the customer (whether the customer is an academic or for-profit entity). This product may not be further sold. Additional terms and conditions (including the terms of a Limited Use Label License) may apply.

CUSTOMER'S USE OF THIS PRODUCT MAY REQUIRE ADDITIONAL LICENSES DEPENDING ON THE SPECIFIC APPLICATION. THE CUSTOMER IS SOLELY RESPONSIBLE FOR DETERMINING FOR ITSELF WHETHER IT HAS ALL APPROPRIATE LICENSES IN PLACE. Miltenyi Biotec provides no warranty that customer's use of this product does not and will not infringe intellectual property rights owned by a third party. BY USE OF THIS PRODUCT, THE CUSTOMER AGREES TO BE BOUND BY THESE TERMS.

Trademarks

The Miltenyi Biotec logo is registered trademark or trademark of Miltenyi Biotec and/or its affiliates in various countries worldwide.

Copyright © 2022 Miltenyi Biotec and/or its affiliates. All rights reserved.

140-006-055.02

Unless otherwise specifically indicated, Miltenyi Biotec products and services are for research use only and not for diagnostic or therapeutic use.