

Recombinant SARS-CoV-2 RBD (HEK)

Contents

1. Description

1.1 Background information

1.2 Applications

1. Description

Products Recombinant SARS-CoV-2 RBD (HEK) or Recombinant SARS-CoV-2 RBD (HEK)-Biotin.

Productname	Content	Order no.
Recombinant SARS-CoV-2 RBD (HEK)	25 µg	130-127-448
Recombinant SARS-CoV-2 RBD (HEK)	100 µg	130-127-518
Recombinant SARS-CoV-2 RBD (HEK)-Biotin	10 µg	130-127-458
Recombinant SARS-CoV-2 RBD (HEK)-Biotin	50 µg	130-127-457

Functional testing Functionality was tested in an flow assay by analyzing the binding of biotinylated RBD to ACE2-expressing cells.

Primary structure Recombinant SARS-CoV-2 RBD (HEK): Single glycosylated polypeptide chain (301 amino acid residues) without N-terminal methionine. C-terminal His-tag and N-terminal AviTag™.

Recombinant SARS-CoV-2 RBD (HEK)-Biotin: Monobiotinylated glycosylated polypeptide chain (302 amino acid residues) without N-terminal methionine. C-terminal His-tag and N-terminal AviTag.

Molecular mass 33.8 kDa.

Source Produced in human embryonic kidney cells.

Product format Lyophilized from a filtered (0.2 µm) buffer solution.

Stabilizer Mannitol and trehalose.

Purity >95% as determined by SDS-PAGE analysis.

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

Storage

Lyophilized Recombinant SARS-CoV-2 RBD (HEK) 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 Recombinant SARS-CoV-2 RBD (HEK) 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 receptor binding domain (RBD) locates C-terminally within the S1 subunits of the spike (S) protein. The S protein forms a homotrimeric structure on the surface of the SARS-CoV-2 virus and binds to the angiotensin-converting enzyme 2 (ACE2) receptor of target cells. Recent studies have shown that the predominant activated form displays one RBD rotated upwards into an ACE2-accessible state and it is known that binding of RBD to ACE2 is a major contributor for interaction of the S protein with its target receptor. The SARS-CoV-2 RBD (HEK) protein covers amino acids R319 to S591 of the spike protein and contains a His-tag and an AviTag. Recombinant SARS-CoV-2 RBD (HEK)-Biotin is specifically biotinylated at a single site, preserving full functionality of the RBD.

1.2 Applications

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

- Analysis of SARS-CoV-2 immune responses
- Detection and characterization of SARS-CoV-2-specific antibodies
- Studying SARS-CoV-2 cell binding, infection, and viral life cycle

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.

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. All other trademarks mentioned in this publication are the property of their respective owners and are used for identification purposes only.

AviTag is a trademark of Avidity, LLC.

Copyright © 2020 Miltenyi Biotec and/or its affiliates. All rights reserved.