Recombinant Human ACE2 (HEK)

Contents

1. Description
   - 1.1 Background information
   - 1.2 Applications

1. Description

Products Recombinant Human ACE2 (HEK) or Recombinant Human ACE2 (HEK)-Biotin.

Productname	Content	Order no.
Recombinant Human ACE2 (HEK)	25 µg	130-127-456
Recombinant Human ACE2 (HEK)	100 µg	130-127-516
Recombinant Human ACE2 (HEK)-Biotin	10 µg	130-127-442
Recombinant Human ACE2 (HEK)-Biotin	50 µg	130-127-465

Functional testing Binding of Recombinant Human ACE2 (HEK)-Biotin human ACE2 to SARS-CoV-2 spike RBD by ELISA.

Primary structure Recombinant Human ACE2 (HEK): Single, glycosylated polypeptide chain (757 amino acid residues) without N-terminal methionine. C-terminal His-tag and AviTag™.

Recombinant Human ACE2 (HEK)-Biotin: Monobiotinylated glycosylated polypeptide chain (757 amino acid residues) without N-terminal methionine. C-terminal His-tag and AviTag.

Molecular mass 87.2 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 Human ACE2 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 Human ACE2 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

Angiotensin-converting enzyme 2 (ACE2, also known as ACEH) is a transmembrane protein and acts as receptor for SARS-CoV, SARS-CoV-2, and some other coronaviruses. The large extracellular peptidase domain of ACE2 is known to interact with the spike glycoprotein of coronaviruses. The small C-terminal collectrin-like domain (CLD) has recently been described to mediate homo-dimerization of ACE2. The main function of ACE2 is the catalytic conversion of angiotensins, thereby regulating cardiovascular homeostasis.
Recombinant Human ACE2 (HEK) protein covers amino acids Q18 to S740 of human ACE2 including the C-terminal collectrin-like domain and contains a His-tag and an AviTag. Recombinant Human ACE2 (HEK)-Biotin is specifically biotinylated at a single site, preserving full functionality of ACE2.

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 for local Miltenyi Biotec Technical Support contact information.

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.

140-005-999.02

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. 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 © 2021 Miltenyi Biotec and/or its affiliates. All rights reserved.

140-005-999.02

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