Miltenyi Biotec

Recombinant Human ACE2 (insect cells)

Contents

1. Description
   - 1.1 Background information
   - 1.2 Applications

1. Description

Products Recombinant Human ACE2 (insect cells) or Recombinant Human ACE2 (insect cells)-Biotin.

Productname	Content	Order no.
Recombinant Human ACE2 (insect cells)	25 µg	130-127-444
Recombinant Human ACE2 (insect cells)	100 µg	130-127-466
Recombinant Human ACE2 (insect cells)-Biotin	10 µg	130-127-468
Recombinant Human ACE2 (insect cells)-Biotin	50 µg	130-127-464

Functional testing Binding of biotinylated human ACE2 to SARS-CoV-2 spike RBD by ELISA.

Primary structure Recombinant Human ACE2 (insect cells): Single, glycosylated polypeptide chain (632 amino acid residues) without N-terminal methionine. C-terminal His-tag and AviTag™.

Recombinant Human ACE2 (insect cells)-Biotin: Monobiotinylated glycosylated polypeptide chain (632 amino acid residues) without N-terminal methionine. C-terminal His-tag and AviTag.

Molecular mass 72.8 kDa.

Source Produced in insect cells.

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

Stabilizer Mannitol and trehalose.

Purity Recombinant Human ACE2 (insect cells): >85% as determined by SDS-PAGE analysis.

Recombinant Human ACE2 (insect cells)-Biotin: >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 (insect cells) 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 (insect cells) 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 proteins 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 (insect cells) protein covers amino acids Q18 to D615 of human ACE2 excluding the C-terminal collectrin-like domain and contains a His-tag and an AviTag. Recombinant Human ACE2 (insect cells)-Biotin is specifically biotinylated at a single site, preserving full functionality of ACE2.

1.2 Applications

This 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.

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