



Monoclonal Anti-human ECE-1 Antibody

ORDERING INFORMATION

Catalog Number: MAB1784

Clone: 303908

Lot Number: WQO02

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS
with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human ECE-1

Immunogen: NS0-derived rhECE-1

Ig class: rat IgG₁

Recommended Application:
Western blot

Other Application:
Direct ELISA

Background

Endothelin-converting enzyme 1 (ECE-1) is a zinc protease of the neprilysin family, which also includes ECE-2, PEX, XCE, DINE, and Kell. ECE-1 is a type II transmembrane (TM) protein with a short cytoplasmic tail (aa 1 - 68) and TM domain (aa 69 - 89). It is widely expressed and has several alternatively spliced forms that differ in their TM domain or cytoplasmic tail. The rhECE-1 corresponds to the 681 aa ectodomain, which is common to all isoforms. The amino acid sequence of the human ectodomain is 96%, 95%, 84%, 78% and 67% identical to that of mouse/guinea pig, rat/bovine/dog, chicken, *Xenopus* and zebrafish.

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified, NS0-derived, recombinant human ECE-1 (rhECE-1; aa 90 - 770; Accession # NP_001388; R&D Systems, Catalog # 1784-ZN). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody was selected for its ability to detect human ECE-1 in Western blots and direct ELISAs. In these formats, this antibody shows no cross-reactivity with rhECE-2 or rhMMEL-2.

Applications

Western blot - This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human ECE-1. Using a colorimetric detection system, the detection limit for rhECE-1 is approximately 25 ng/lane under non-reducing and reducing conditions as determined by chemiluminescent detection with WesternGlo™ Chemiluminescent Detection Substrate (R&D Systems, Catalog # AR004).

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human ECE-1. The detection limit for rhECE-1 is approximately 5 ng/well.

Optimal dilutions should be determined by each laboratory for each application.