

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ECE-1 in direct ELISAs.
Source	Monoclonal Rat IgG ₁ Clone # 303913
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ECE-1 Gln90-Trp770 Accession # P42892
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	0.25-1 µg/10 ⁶ cells	MCF-7 human breast cancer cell line fixed with paraformaldehyde and permeabilized with saponin

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Endothelin-converting Enzyme 1 (ECE-1) is a zinc protease of the neprilysin (NEP) family, which also includes ECE-2, PEX, XCE, DINE, Kell and several NEP-like proteins (1). ECE-1 is a type II transmembrane protein with a short cytoplasmic tail and a large ectodomain. Four alternatively spliced isoforms differ in their cytoplasmic tail (2, 3). In addition to big endothelin-1, ECE-1 cleaves a variety of bioactive peptides such as bradykinin, neurotensin, angiotensin I, and substance P (1). Together with ECE-2, it is also involved in degradation of β-amyloid peptide (4). The ectodomain of human ECE-1, which is common to all isoforms, was expressed with an N-terminal His tag and purified.

References:

1. Turner, A.J. *et al.* (2001) *BioEssays* **23**:261.
2. Valdennaire, O. *et al.* (1999) *Eur. J. Biochem.* **264**:341.
3. Schweizer, A. *et al.* (1997) *Biochem. J.* **328**:871.
4. Eckman, E.A. *et al.* (2003) *J. Biol. Chem.* **278**:2081.

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