Human ECE-1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1784

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ECE-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 5% cross-reactivity with recombinant human ECE-2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ECE-1 Gln90-Trp770 Accession # P42892
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

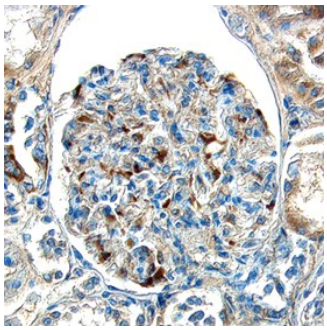
APPLICATIONS

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
Western Blot	0.1 µg/mL	Recombinant Human ECE-1 (Catalog # 1784-ZN)
Immunohistochemistry	5-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human ECE-1 (Catalog # 1784-ZN), see our available Western blot detection antibodies
Intracellular Staining by Flow Cytometry	2.5 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

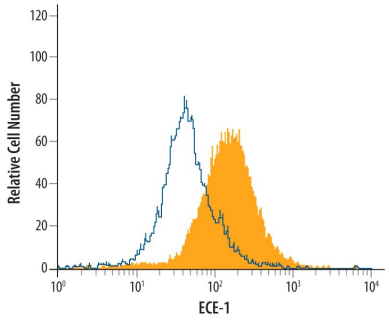
DATA

Immunohistochemistry



ECE-1 in Human Kidney. ECE-1 was detected in immersion fixed paraffin-embedded sections of human kidney using Goat Anti-Human ECE-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1784) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to the endothelial cells in glomeruli. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Intracellular Staining by Flow Cytometry



Detection of ECE-1 in MCF-7 Human Cell Line by Flow Cytometry. MCF-7 human breast cancer cell line was stained with Human ECE-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1784, filled histogram) or control antibody (Catalog # AB-108-C, open histogram), followed by Allophycocyanin-conjugated Anti-Goat IgG Secondary Antibody (Catalog # F0108). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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