

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Carboxypeptidase E/CPE in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human CPM is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Carboxypeptidase E/CPE Arg42-Ser453 Accession # P16870
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.
Intracellular Staining by Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.

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

Encoded by the CPE gene and also known as Carboxypeptidase H, CPE is a single chain peptidase with an optimal pH range between 5.0-6.0. It is a zinc metallocarboxypeptidase that removes basic amino acids from the C-terminus of peptides (1). Like other metallocarboxypeptidases, its activity is stimulated by millimolar concentrations of Co²⁺. Its activity is regulated by pH-induced aggregation above pH 6.0. Its major function seems to process numerous peptide hormones and neurotransmitters. In addition to its proteolytic function, it also plays a role as a sorting receptor (2), which may be attributed to the sorting of this protein into the secretory pathway. The C-terminal domain of CPE causes the peripheral association of CPE with membranes below neutral pH, resulting in the association of this protein into membranes (3). CPE knockout mice live but become obese due to impaired glucose clearance and insulin resistance (4).

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