# Human Carboxypeptidase E/CPE Alexa Fluor® 647-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF3587R
100 µg

## DESCRIPTION

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| **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<br>Arg42-Ser453<br>Accession # P16870 |
| **Conjugate** | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm |
| **Formulation** | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.*

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| **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

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| **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 $Co^{2+}$. 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).

## PRODUCT SPECIFIC NOTICES

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