Human Carboxypeptidase A2/CPA2 Antibody

Monoclonal Mouse IgG_{2B} Clone # 384014

Catalog Number: MAB2896

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Carboxypeptidase A2/CPA2 in direct ELISAs and Western blots. In Western blots, recognizes the pro form but not the activated enzyme.
Source	Monoclonal Mouse IgG_{2B} Clone # 384014
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Carboxypeptidase A2/CPA2 Tyr17-His417 Accession # P48052
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

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	1 µg/mL	Recombinant Human Carboxypeptidase A2 (Catalog # 2896-ZN)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Carboxypeptidase A2/CPA2 (Catalog # 2896-ZN), see our available Western blot detection antibodies
Neutralization	Measured by its ability to neutralize Recombinant Human Carboxypeptidase A2/CPA2 (0.1 µg/mL, Catalog # 2896-ZN) cleavage of the fluorogenic peptide substrate N-acetyl-Phe-Thiaphe-OH (0.1 mM). The Neutralization Dose (ND_{50}) is typically 1.5 µg/mL.	

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
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

Carboxypeptidase A2 encoded by the CPA2 gene cleaves the C-terminal amide or ester bond of peptides that have a free C-terminal carboxyl group (1). It prefers the C-terminal residues with aromatic side chains including Phe, Tyr, and Trp. The deduced amino acid sequence of human CPA2 consists of a signal peptide (residues 1 to 16), a pro region (residues 17 to 112), and a mature chain (residues 113 to 417).

References:

1. Auld, D.S. (2004) in *Handbook of Proteolytic Enzymes* (ed. Barrett, *et al.*) p. 821, Academic Press, San Diego.