Human Carnosine Dipeptidase 1/CNDP1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2489

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Carnosine Dipeptidase 1/CNDP1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Carnosine Dipeptidase 1/CNDP1 Pro28-His507 Accession # Q96KN2
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 either lyophilized or 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 Carnosine Dipeptidase 1/CNDP1 (Catalog # 2489-ZN)
Immunocytochemistry	5-15 µg/mL	Immersion fixed human neural progenitor cells differentiated by growth factor withdrawal
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Carnosine Dipeptidase 1/CNDP1 (Catalog # 2489-ZN), see our available Western blot detection antibodies

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

The human CNDP1 gene encodes carnosine dipeptidase 1, a member of the M20 family of metalloproteases (1, 2). Also known as X-His dipeptidase, glutamate carboxypeptidase-like protein 2 (CPGL-2) or carnosinase 1 (CN1), CNDP1 is a secreted dipeptidase with a narrow specificity for Xaa-His dipeptides including those with Xaa = β-Ala (carnosine) and Xaa = γ-aminobutyric acid (homocarnosine), two naturally occurring dipeptides with potential neuroprotective and neurotransmitter fucntions in the brain. In comparison, a closely related protein known as CNDP2, CPGL or CN2, is a cytosolic nonspecific dipeptidase.

References:

1. Teufel, M. *et al.* (2004) J. Biol. Chem. **278**:6521.
2. Bauer, K. (2004) in *Handbook of Proteolytic Enzymes* (ed. Barrett, *et al.*) p. 1022, Academic Press, San Diego.

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