Human/Rat/Bovine/Canine/Guinea Pig/Rabbit/Sheep Dopa Decarboxylase/DDC Antibody

Antigen Affinity-purified Polyclonal Sheep IgG

Catalog Number: PPS065

DESCRIPTION

Species Reactivity	Human/Rat/Bovine/Canine/Guinea Pig/Rabbit/Sheep
Specificity	Human, bovine, canine, guinea pig, rabbit, rat, and sheep ~55 kDa DOPA Decarboxylase (DDC) in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Dopa Decarboxylase/DDC
Formulation	100 µL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/mL BSA and 50% glycerol. See Certificate of Analysis for details.

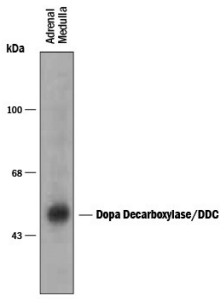
APPLICATIONS

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	1:1000 dilution	See Below

DATA

Western Blot



Detection of Dopa Decarboxylase/DDC by Western Blot. Western blot of bovine adrenal medulla lysate showing specific immunolabeling of the ~55 kDa DDC protein.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	For long-term storage, ≤ -20° C is recommended. Product is stable at ≤ -20° C for at least 1 year.

BACKGROUND

DOPA decarboxylase (Aromatic-L-amino acid decarboxylase; also DDC) is a 54 kDa member of the α-family of pyroxidal phosphate enzymes. Functional DDC is a homodimeric, pyridoxal phosphate-dependent enzyme that calatyzes the decarboxylation of DOPA to dopamine, L-tryptophan to tryptamine, and 5-hydroxytryptophan to serotonin. Both dopamine and serotonin are important neurotransmitters. It also demonstrates deaminase activity, and is regulated by O2 availability. Bovine DDC is 487 amino acids (aa) in length and contains an N-terminal decarboxylase domain (aa 35-414) and a C-terminal pyroxidal binding site (L303). Bovine DDC is 88% and 86% aa identical to human and rat DDC, respectively.

References:

1. Kang, U.J. and T.H. Joh (1990) Brain Res. Mol. Brain Res. **8**:83.
2. Ichinose, H. *et al.* (1989) Biochem. Biophys. Res. Commun. **164**:1024.
3. Moore, P.S. *et al.* (1996) Biochem. J. **315**:249.
4. Bertoldi, M. and C.B. Voltattorni (2003) Biochim. Biophys. Acta **1647**:42.

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