

DDC (D6N8N) Rabbit mAb

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	48	Rabbit IgG	#P20711	1644

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

Specificity/Sensitivity

DDC (D6N8N) Rabbit mAb recognizes endogenous levels of total DDC protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val33 of human DDC protein.

Background

L-DOPA decarboxylase (DDC) is a pyridoxal 5-phosphate (PLP)-dependent enzyme that catalyzes the decarboxylation of L-DOPA to dopamine (1) and L-5HTP to serotonin (2). By catalyzing the reaction to produce dopamine, DDC is involved in many important metabolic processes and plays a central role in the complex neuroendocrine-immune regulatory network (1). DDC is expressed in the central nervous system (3), but has also been detected in some peripheral organs such as the liver and adrenal gland, as well as leukocytes of rat and human (1). DDC is thought to be the sole enzyme responsible for the synthesis of the trace amines 2-phenylethylamine, p-tyramine, and tryptamine, which are considered to act as neuromodulators (2,4). DDC is also regarded as a general biomarker for neuroendocrine tumors (3).

Background References

1. Zhou, Z. et al. (2011) *PLoS One* 6, e18596.
2. Børghlum, A.D. et al. (1999) *Mol Psychiatry* 4, 545-51.
3. Kontos, C.K. et al. (2010) *Br J Cancer* 102, 1384-90.
4. Ma, J.Z. et al. (2005) *Hum Mol Genet* 14, 1691-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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