

CART (D6M2M) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P	H M R	Endogenous	4-12	Rabbit IgG	#Q16568	9607

Product Usage Information**Application**

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:75

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

CART (D6M2M) Rabbit mAb recognizes endogenous levels of total CART protein. Staining has been observed in prostate carcinoma, the specificity of which is unknown.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein corresponding to the full-length human CART protein.

Background

Cocaine- and amphetamine-regulated transcript (CART) peptides are neurotransmitters of 39 and 47 amino acids that are involved in a variety of physiological processes. The CART precursor, a polypeptide of 116 residues, requires prohormone/proprotein convertase-mediated endoproteolytic cleavage to produce the two active peptides (1). CART peptides are found in several neuroendocrine tissues such as the brain, pituitary, adrenals, and pancreas (2). Hypothalamic CART is regulated by leptin, and plays a role in appetite and feeding behavior (3). Mesolimbic CART is regulated by CREB and may play a role in drug abuse behaviors by mediating some of CREB effects (4). Pancreatic CART is found in islet endocrine cells and parasympathetic and sensory nerves. It inhibits glucose-stimulated insulin secretion and has been found to be up-regulated in beta cells in animal model of diabetes (5). A missense mutation in the corresponding *CART* gene can correlate with susceptibility to obesity and reduced resting energy expenditure (6).

Background References

- Stein, J. et al. (2006) *Peptides* 27, 1919-25.
- Hunter, R.G. and Kuhar, M.J. (2003) *Curr Drug Targets CNS Neurol Disord* 2, 201-5.
- Thim, L. et al. (1998) *Int J Biochem Cell Biol* 30, 1281-4.
- Kuhar, M.J. et al. (2005) *AAPS J* 7, E259-65.
- Wierup, N. and Sundler, F. (2006) *Peptides* 27, 2031-6.
- del Giudice, E.M. et al. (2001) *Diabetes* 50, 2157-60.

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 **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

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

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