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PMCH Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5528c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P20382
Other Accession	NP_002665.2
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB21251
Calculated MW	18679
Antigen Region	94-122

Additional Information

Gene ID	5367
Other Names	Pro-MCH, Neuropeptide-glycine-glutamic acid, NGE, Neuropeptide G-E, Neuropeptide-glutamic acid-isoleucine, NEI, Neuropeptide E-I, Melanin-concentrating hormone, MCH, PMCH, MCH
Target/Specificity	This PMCH antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 94-122 amino acids from the Central region of human PMCH.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PMCH Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PMCH (HGNC:9109)

Synonyms	MCH
Function	[Melanin-concentrating hormone]: Neuropeptide ligand for the G protein-coupled receptor MCHR1 and MCHR2 that can activate both G(i/o)- and G(q/11)-dependent signaling pathways (PubMed:15340116, PubMed:38710677, PubMed:39616153). Acts as a neuromodulator in the central nervous system, promoting feeding, positive energy balance (orexigenic) and sleep. Inhibits stimulated ACTH release (lowering plasma glucocorticoids), consistent with a role in down-regulating hypothalamic-pituitary-adrenal (HPA) axis activity. Functionally antagonizes melanotropin alpha (alpha-MSH), opposing its inhibitory effect on food intake and exploratory behaviors and its stimulatory effect on the HPA axis. Antagonizes NEI-induced behavioral effects (By similarity). May also participate in spermatocyte differentiation (By similarity).
Cellular Location	[Melanin-concentrating hormone]: Secreted
Tissue Location	[Melanin-concentrating hormone]: Expressed in lateral hypothalamus. Predominantly expressed in lateral hypothalamus, also detected in pallidum, neocortex and cerebellum. Also found in thymus, brown adipose tissue, duodenum and testis (spermatogonia, early spermatocytes and Sertoli cells). No expression in peripheral blood. In peripheral tissues a large product, encompassing the NEI and MCH domains of the precursor, is found predominantly

Background

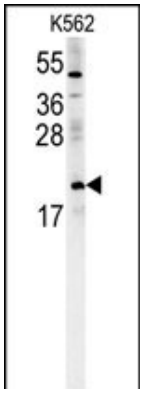
The melanin-concentrating hormone (MCH) is a cyclic neuropeptide isolated initially from salmon pituitary gland and later from rat hypothalamus (summarized by Nahon et al., 1992 [PubMed 1572663]). In mammals, MCH perikarya are confined largely to the lateral hypothalamus and zona incerta area with extensive neuronal projections throughout the brain, including the neurohypophysis. The anatomic distribution suggests a neurotransmitter or neuromodulator role for MCH in a broad array of neuronal functions directed toward the regulation of goal-directed behavior, such as food intake, and general arousal. MCH and 2 other putative neuropeptides, NEI and NGE, are encoded by the same precursor and appear colocalized in nerve cells and in many instances within the projections. The precursor is designated pro-melanin-concentrating hormone (PMCH).

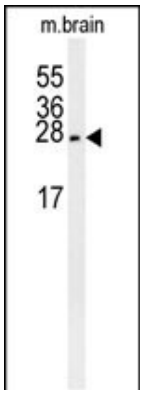
References

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Gratacos, M., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (6), 808-816 (2009) :
Aziz, A., et al. Brain Pathol. 18(4):474-483(2008)
Kokkotou, E., et al. Proc. Natl. Acad. Sci. U.S.A. 105(30):10613-10618(2008)

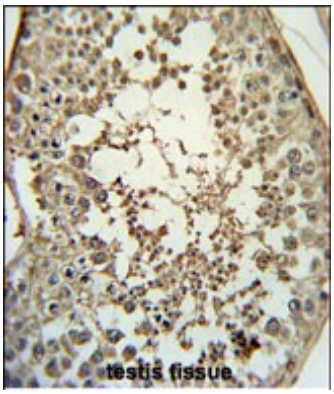
Images

PMCH Antibody (Center) (Cat. #AP5528c) western blot analysis in K562 cell line lysates (15ug/lane).This demonstrates the PMCH antibody detected the PMCH protein (arrow).

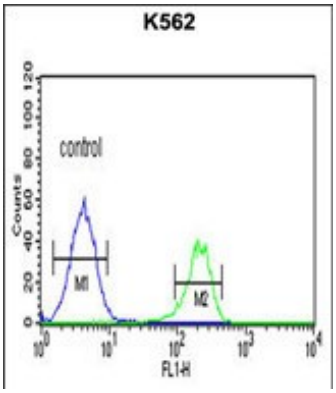




PMCH Antibody (Center) (Cat. #AP5528c) western blot analysis in mouse brain tissue lysates (15ug/lane).This demonstrates the PMCH antibody detected the PMCH protein (arrow).

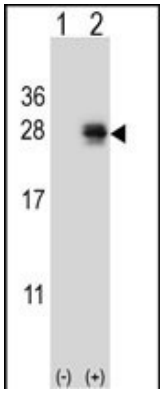


PMCH Antibody (Center) (Cat. #AP5528c) immunohistochemistry analysis in formalin fixed and paraffin embedded human testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PMCH Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



PMCH Antibody (Center) (Cat. #AP5528c) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Western blot analysis of PMCH (arrow) using rabbit polyclonal PMCH Antibody (Center) (Cat. #AP5528c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the PMCH gene.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.