

Melanin-Concentrating Hormone (MCH) Antibodies

Cat. # MCH61-P	Human MCH Full length, Oxidized	SIZE: 100 ug
Cat. # MCH61-P-500	Human MCH Full length, Oxidized	SIZE: 100 ug

Melanin-concentrating hormone (MCH) is a cyclic neuropeptide (human/rat 19 aa) that regulates a variety of functions in mammalian brain, in particular feeding behavior. MCH is synthesized in mainly in the lateral hypothalamus and zona incerta. MCH stimulates feeding, its level is unregulated in the hypothalamus of genetically obese mice, and mice lacking MCH eat less and are lean. MCH is thought to influence feeding and energy balance by acting downstream of leptin and the melanocortin system. However, molecular mechanisms of these diverse actions of MCH remain poorly understood, as its receptor was not identified.

Recently, an orphan G-protein coupled receptor (SLC-1, GPR24) has been identified as the receptor of MCH. MCH receptor (**MCHR**; human 402 aa, rat 353 aa) is predicted to contain 7 transmembrane domains, a feature typical of G-protein coupled receptors. It is primarily expressed in the ventromedial and dorsomedial nuclei of the hypothalamus. Moderate levels of MCHR are also found in the eye and skeletal muscle, tongue, and pituitary. MCHR binds MCH with sub-nanomolar affinity, and is stimulated by MCH to mobilize intracellular Ca and reduce forskolin-elevated cAMP levels.

Source of Antigen and Antibodies

Human MCH, **full length (DFD MLR CML GRV YRP CWQ V, Cys7-Cys16; mol wt 2386) (Cat #MCH61-P)** was synthesized, purified by hplc, and cysteine oxidized (Cys 7-Cys16). It is presented in 100 ug or 500 ug vials.

Store powder at -20oC for up to 6 months. Reconstitute powder in water at 1 mg/ml and store at -20oC or below for up to 3 months. Do not store diluted solution.

Shipping: 4oC for solutions and room temp for powder.

Specificity & Cross-reactivity

The human MCH61-P peptide sequence is 100% conserved in human mouse, and rat, and 76% in the fish. No significant sequence homology of MCH51-P is seen with other peptide hormones.

General References:

Nahon, JL et al (1989) *Endocrinol.* 125, 2056-2065;
Thompson, RC et al (1990) *DNA Cell Biol.* 9, 637-645;
Vaughan JM et al (1989) *Endocrinol.* 125, 1660-1665;
Presse F et al (1990) *Mol. Endocrinol.* 4, 632-637;
Breton C et al (1993) *Brain Res.* 18, 297-310

*This product is for *in vitro* research use only.

Antibodies to MCH and melanocortin receptors (MCR1-5), and MCH R

MCH61, MCH61-P-500

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