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DATA SHEET

Mouse Anti-cAMP [ABM486]: MC0489

Intended Use: For Research Use Only

Description: Cyclic adenosine monophosphate (cAMP), an intracellular mediator, is important in many signal transduction pathways as a ubiquitous cytoplasmic second messenger due to the involvement of G-Protein Coupled Receptors (GPCR) signaling events where the receptors are activated by different ligands, such as neurotransmitters, hormones, ions, small molecules, peptides, etc. cAMP is generated from ATP by the removal of one pyrophosphate molecule by adenylate cyclase. Adenylate cyclase activation increases the concentration of cAMP in the cell, allowing for the activation of cAMP-dependent protein kinase. The activated kinase amplifies the signal, phosphorylating a number of proteins and altering cellular activity. cAMP is a key intracellular regulator; it mediates the activities of numerous hormones, including ACTH, Glucagon and epinephrine, and plays an important role in modulating calcium transport, regulating gene activation and inducing physiological responses to growth, differentiation and neurotransmission.

Specifications:

Clone:	ABM486
Source:	Mouse
Isotype:	IgG1
Reactivity:	Human
Immunogen:	A chemically linked 3, 5-cyclic Adenosine Monophosphate (cAMP)
Localization:	Secreted
Formulation:	Purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC, WB

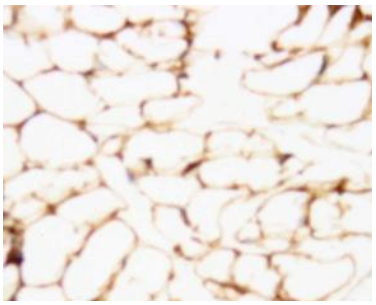
Package:

Description	Catalog No.	Size
cAMP Concentrated	MC0489	1 ml

IHC Procedure*:

Positive Control Tissue:	Lung cancer, kidney, tonsillitis
Concentrated Dilution:	10-50
Pretreatment:	Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human lung cancer stained with anti-cAMP using DAB

References:

1. Cilostamide and rolipram prevent spontaneous meiotic resumption from diplotene arrest in rat oocytes cultured in vitro
2. Anumegha Gupta, et al., Eur J Pharmacol. . Jul 5;878:173115, 2020.
3. Central antagonism of orexin type-1 receptors attenuates the development of morphine dependence in rat locus coeruleus neurons. Mojgan Fakhari, et al. Neuroscience. Nov 5;363:1-10, 2017.
4. Pinoresinol promotes MC3T3-E1 cell proliferation and differentiation via the cyclic AMP/protein kinase A signaling pathway. Jiang X, et al. Mol Med Rep 20:2143-2150, 2019.

Orders: customercare@medaysis.com Support: techsupport@medaysis.com Tel: 510-509-3153 www.medaysis.com