



DB107: PKC (MC5)

Background:

To date at least 12 different protein kinase C (PKC) isoforms have been identified that possess distinct differences in structure, substrate requirement, expression and localization (1). The PKC family of serine/threonine protein kinases is a ubiquitous group involved in complex intracellular signaling processes that are mediated through phospholipid hydrolysis (2). The general structure of a PKC molecule consists of a catalytic and a regulatory domain; composed of a number of conserved regions interspersed with variable domains. The PKC isoforms have been divided into three groups, conventional PKC isoforms (α , β I, β II, and γ), novel PKC isoforms (δ , ϵ , η , θ , and μ), and atypical PKC isoforms (ξ , and λ/ι). The more recently identified PKC ν shows the most sequence homology to PKC μ . The conventional PKC isoforms require calcium and diacylglycerol (DAG) for activation, the novel isoforms require DAG, and the atypical PKC isoforms require neither calcium nor DAG (3).

Origin:

PKC (MC5) is provided as a mouse monoclonal IgG_{2a} derived from the fusion of X-63 myeloma cells with spleen cells from a BALB/c mouse immunized with protein kinase C purified from bovine brain.

Product Details:

Each vial contains 200 μ g/ml of mouse monoclonal IgG_{2a} PKC (MC5) DB107, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Specificity:

PKC (MC5) DB107 reacts with PKC of mouse, rat and human origin by Western blotting and immunoprecipitation. Western blotting starting dilution: 1:200.

Storage:

Store this product at 4° C, do not freeze. The product is stable for one year from the date of shipment.

References:

1. Way KJ, Chou E, King GL. 2000. Identification of PKC-isoform-specific biological actions using pharmacological approaches. Trends Pharmacol Sci. 21(5): 181-187.
2. Liu WS, Heckman CA. 1998. The sevenfold way of PKC regulation. Cell Signal. 10(8): 529-542.
3. Gschwendt M. 1999. Protein kinase C delta. Eur J Biochem. 259(3): 555-564.