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Product Information

Protein Phosphatase 2A₂ from bovine kidney

Product Number **P 1868**
Storage Temperature -70 °C

Synonyms: PP2A₂

Product Description

Protein Phosphatase 2A₂ is a divalent cation-independent protein serine/threonine phosphatase. This product is a dimer consisting of the A and C subunits, which have molecular weights of 65 kDa and 36 kDa, respectively. This enzyme is involved in regulating numerous cellular processes including cell cycle, growth, and differentiation. It also has a role in oncogenic transformation and as a growth suppressor.

The product is supplied as a solution of 50 mM Tris-HCl, pH 7.0, containing 14 mM 2-mercaptoethanol, 1 mM benzamidine, 0.1 mM PMSF, 1 mM EDTA, and 50% glycerol.

Specific Activity: ~2,000 units per mg protein
(~2 units per vial).

Unit Definition: One unit will release 1 nanomole of inorganic phosphate from ³²P-labeled phosphorylase per minute at 30 °C at pH 7.0.

Purity: minimum 90% (SDS-PAGE)

Precautions and Disclaimer

This product is for laboratory research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships in dry ice and storage at -70 °C is recommended. Avoid freeze-thaw cycles. Store working aliquots at -70 °C. The product is stable for 24 to 48 hours at 2-8 °C.

References

1. Amick, G.D., et al., Protein Phosphatase 2A is a specific protamine-kinase-inactivating phosphatase. *Biochem. J.*, **287**(Pt. 3), 1019-1022 (1992).
2. Guo, H., and Damuni, Z., Autophosphorylation-Activated Protein Kinase Phosphorylates and Inactivates Protein Phosphatase 2A. *Proc. Natl. Acad. Sci. USA*, **90**(6), 2500-2504 (1993).
3. Hiraga, A., and Tamura, S., Protein phosphatase 2A is associated in an inactive state with microtubules through 2A1-specific interaction with tubulin. *Biochem. J.*, **346**, 433-439 (2000).
4. Matthews, H.R., and MacKintosh, C., Protein histidine phosphatase activity in rat liver and spinach leaves. *FEBS Letters*, **364**, 51-54 (1995).
5. Lechward, K., et al, Protein phosphatase 2A: variety of forms and diversity of functions. *Acta Biochim. Pol.*, **48**(4), 921-933 (2001).

RBG,LCM,MAM 01/05-1

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