

PRODUCT INFORMATION



Protein Phosphatase 2A C subunit (human, recombinant; L309 deletion)

Item No. 10011237

Overview and Properties

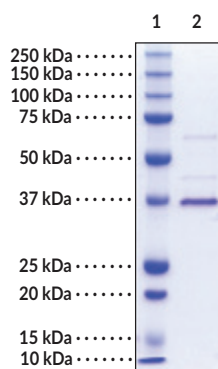
Synonyms: PP2A Ca, PP2A L309, PP2A Δ 309
Source: Human recombinant PP2A catalytic subunit expressed in insect cells with an N-terminal octahistidine-tag followed by a streptactin-tag. The C-terminal leucine 309 was deleted.
Uniprot No.: P67775
Molecular Weight: 38.6 kDa
Storage: -80°C (as supplied); avoid freeze/thaw cycles by aliquoting protein
Stability: \geq 1 year
Supplied in: 20 mM Tris, pH 7.5, with 100 mM sodium chloride, 5 mM MgCl₂, 1 mM EDTA, and 25% glycerol

Protein

Concentration: *batch specific* mg/ml
Activity: *batch specific* U/ml
Specific Activity: *batch specific* U/mg
Unit Definition: One unit of enzyme produces 1 μ mol of p-nitrophenol per minute at 37°C in 40 mM Tris-HCl pH 7.5, 34 mM MgCl₂, 4 mM EDTA, 2 mM DTT, and 0.05 mg/mL BSA containing 20 mM p-nitrophenyl phosphate

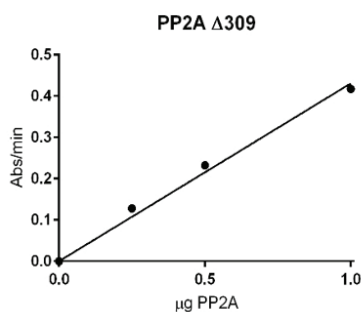
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Markers
Lane 2: PP2A (2 μ g)

Representative gel image shown; actual purity may vary between each batch.



WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Reversible protein phosphorylation is a fundamental regulatory mechanism in all aspects of biology. Protein phosphatase 2A (PP2A) is a divalent cation-independent protein serine/threonine phosphatase involved in regulating numerous cellular processes including the cell cycle, growth and differentiation and is also thought to be a potential tumor suppressor.¹ PP2A is a heterotrimeric protein containing a 65 kDa scaffolding A subunit, a regulatory B subunit and a 36 kDa catalytic C subunit.² The recombinant PP2A catalytic subunit has the characteristic properties of Type 2A phosphatases and is highly sensitive to okadaic acid and microcystins.³ The provided preparation of the catalytic subunit of PP2A is useful for the study of enzyme kinetics and regulation, to dephosphorylate target substrates and to evaluate the effects of test substances on the activity of the phosphatase.

References

1. Perrotti, D. and Neviani, P. Protein phosphatase 2A (PP2A), a drugable tumor suppressor in Ph1(+) leukemias. *Cancer Metastasis Rev.* (2008).
2. Xing, Y., Xu, Y., Chen, Y., *et al.* Structure of protein phosphatase 2A core enzyme bound to tumor-inducing toxins. *Cell* **127**, 341-353 (2006).
3. Ikehara, T., Shinjo, F., Ikehara, S., *et al.* Baculovirus expression, purification, and characterization of human protein phosphatase 2A catalytic subunits α and β . *Protein Expr. Purif.* **45(1)**, 150-156 (2006).

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