



Casein Kinase 2 alpha (CKIIa CK2A1, CSNK2A1)

Catalog number

C2085-63J

Supplier

United States Biological

Unlike most serine/threonine kinases, Casein Kinases (CKs) are not activated by specific stimuli, but are essentially constitutively active. CK1 autophosphorylates, causing inactivation, and protein phosphatases reactivate the kinase. The substrates of CKs are numerous, but their function is less clear, perhaps due to the absence of obvious regulation. CK1 isoforms are thought to be involved in the response to DNA damage, while CK2 levels are elevated in many types of cancer.

Applications

Suitable for use in Western Blot, Dot Blot, Immunoprecipitation, Immunohistochemistry and Immunocytochemistry. Other applications not tested.

Recommended Dilutions

Western Blot: 1:1000 detects Casein Kinase 2 alpha on 10ug of HeLa cell lysates. Also detects CK-2a in extracts of kidney tissue. Various bands are seen between 40 and 44kD. Using 1ug/ml of C2085-63J, the lower detection limit for the holoenzyme is 500ng. The detection limit for the alpha-subunit is 300ng.

Dot Blot: 1ug/ml; The lower detection limit for the holoenzyme is 100ng. The detection limit for the alpha-subunit is 60ng.

Immunoprecipitation: Immunoprecipitates a protein with a MW of 44kD, CK-2a subunit. A 26kD protein band, the beta-subunit of the heterotetrameric holoenzyme $\alpha_2\beta_2$, is coprecipitated with the CK-2a subunit.

Immunohistochemistry: Paraffin sections

Immunocytochemistry (Acetone or methanol fix only): 5ug/ml

Optimal dilutions to be determined by the researcher.

Positive Control

HeLa cell lysate

Storage and Stability

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for 12 months after receipt. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

Immunogen

Purified recombinant alpha-subunit of Casein Kinase 2.

Formulation

Supplied as a liquid in PBS, 0.09% sodium azide.

Purity

Purified



Specificity

Recognizes the alpha-subunit of Casein Kinase 2. It binds specifically to the catalytic alpha-subunit of Casein Kinase 2 (CK-2a). Species Crossreactivity: human, mouse and rat.

Product Type

Mab

Source

human

Isotype

IgG1

Grade

Purified

Applications

DB IC IHC IP WB

Crossreactivity

Hu Mo Rt

Storage

-20°C

MW

44

Reference

1. Trachana, V., et al., International J. Biochemistry & Cell Biology. 37: 478-492 (2005).
2. Schmidt-Spaniol, I., et al., Hybridoma 11: 53 (1992).
3. Grankowski, N., et al., Eur. J. Biochem. 198: 25 (1991).
4. Laemmli, U.K., Nature 227: 680 (1970).
5. Burnette, W.N., Anal. Biochem. 112: 195 (1981).