Technical Data Sheet

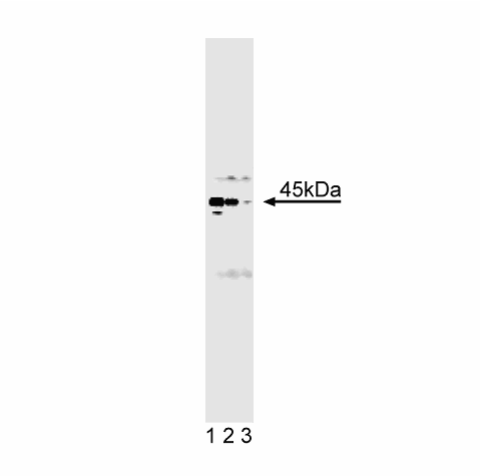
Purified Mouse Anti-Casein Kinase IIα/α'

Product Information

Material Number:	**611610**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	31/Casein Kinase IIα/α'
Immunogen:	Rat Casein Kinase II α aa. 1-123
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Human, Mouse
Target MW:	45 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Casein kinase II (CKII, CK2) is a pleiotropic, ubiquitous, and constitutively active Ser/Thr kinase that utilizes both ATP and GTP as phosphoryl donors to catalyze the phosphorylation of numerous protein substrates. It has been implicated in DNA replication, control of metabolism, and regulation of transcription and translation. CKII is a messenger independent kinase due to the fact that its activity is not affected by factors that regulate other protein kinases (e.g. cAMP, Ca2+, diacylglycerol). It is composed of two catalytic (α and α') subunits and two regulatory (β) subunits. The β subunits stabilize the holoenzyme and enhance the activity of the α subunits. Although the enzyme exists as a tetramer, the free α/α' subunits are catalytically active by themselves and are present in cells under some conditions. The α and α' subunits (85% homologous) are encoded by distinct genes and have been detected in multiple species including human, bovine, and avian. CKII is found primarily in the nucleus in dividing cells, but can be detected in the cytoplasm in quiescent cells. Thus, CKII activity is required for cell cycle progression and other essential signal transduction events.



Western blot analysis of Casein Kinase α/α' on rat cerebellum lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-Casein Kinase α/α'.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Flow cytometry	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml .

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611464	Rat Cerebellum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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