

Technical Data Sheet

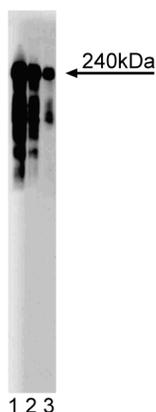
Purified Mouse Anti-CRIK

Product Information

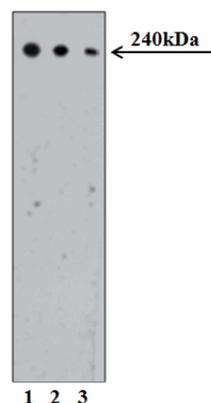
Material Number:	611377
Alternate Name:	Serine/Threonine Protein Kinase 21
Size:	150 µg
Concentration:	250 µg/ml
Clone:	6/CRIK
Immunogen:	Mouse CRIK aa. 1420-1612
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Rat, Mouse
Target MW:	240 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Citron was identified by its interactions with activated Rho and Rac. It contains a zinc finger (ZF) region, a pleckstrin homology (PH) domain, a citron/MRCK/Gek (CMG) domain, and a coiled-coil domain with a Rho-Rac binding region (RRB). Citron binds to PSD-95 via its C-terminal tSXV motif and the PDZ domain on PSD-95. This association occurs at post synaptic densities where citron-PSD-95 may provide a specific link between the Rho signaling cascade and the synaptic NMDA receptor complex. Citron **Rho-interacting kinase (CRIK)** and CRIK short kinase (CRIK-SK) are Ser/Thr kinase isoforms of the myotonic dystrophy kinase family. CRIK contains full-length citron, with an N-terminal kinase domain. CRIK-SK is a splice variant that contains only the kinase domain. CRIK co-localizes with actin in keratinocytes and co-expression of CRIK and Rho increases CRIK kinase activity two-fold. In addition, CRIK mutants cause abnormal contraction during cytokinesis. CRIK is expressed highest in testis, but is also present in brain, spleen, lung, and kidney. Thus, CRIK is a Ser/Thr kinase that functions downstream of Rho during events such as cytokinesis and synaptic transmission.



Western blot analysis of CRIK on Rat PC12 cell lysate (ATCC CRL-1721). Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-CRIK.



Western blot analysis of CRIK on Human Jurkat cell lysate (ATCC TIB-152). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-CRIK (5 min exposure).

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
611454	PC12 Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal
611451	Jurkat Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

- Di Cunto F, Calautti E, Hsiao J. Citron rho-interacting kinase, a novel tissue-specific ser/thr kinase encompassing the Rho-Rac-binding protein Citron. *J Biol Chem.* 1998; 273(45):29706-29711. (Biology)
- Furuyashiki T, Fujisawa K, Fujita A. Citron, a Rho-target, interacts with PSD-95/SAP-90 at glutamatergic synapses in the thalamus. *J Neurosci.* 1999; 19(1):109-118. (Biology)
- Madaule P, Eda M, Watanabe N. Role of citron kinase as a target of the small GTPase Rho in cytokinesis. *Nature.* 1998; 394(6692):491-494. (Biology)
- Zhang W, Vazquez L, Apperson M, Kennedy MB. Citron binds to PSD-95 at glutamatergic synapses on inhibitory neurons in the hippocampus. *J Neurosci.* 1999; 19(1):96-108. (Biology)

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