

Phospho-CrkII (Tyr221) Antibody



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H Hm	Endogenous	42	Rabbit	#P46108	1398

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Phospho-CrkII (Tyr221) Antibody detects endogenous levels of CrkII only when phosphorylated at tyrosine 221. The antibody cross-reacts with Tyr207-phosphorylated CrkL but does not cross-react with other tyrosine-phosphorylated proteins.

Species predicted to react based on 100% sequence homology

Mouse, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr221 of human CrkII. Antibodies are purified by protein A and peptide affinity chromatography.

Background

CrkII, a cellular homologue of v-Crk, belongs to a family of adaptor proteins with an SH2-SH3-SH3 domain structure that transmits signals from tyrosine kinases (1). The primary function of Crk is to recruit cytoplasmic proteins in the vicinity of tyrosine kinases through SH2-phospho-tyrosine interaction. Thus, the output from Crk depends on the SH3-binding proteins, which include the C3G and Sos guanine nucleotide exchange proteins, Abl tyrosine kinase, DOCK180 and some STE20-related kinases. The variety of Crk-binding proteins indicates the pleiotropic function of Crk (2). The two CrkII SH3 domains are separated by a 54 amino acid linker region, which is highly conserved in Xenopus, chicken and mammalian CrkII proteins (3). Tyrosine 221 in this region is phosphorylated by the Abl tyrosine kinase (4), IGF-I receptor (5) and EGF receptor (6). Once Tyr221 is phosphorylated, CrkII undergoes a change in intramolecular folding and SH2-pTyr interaction, which causes rapid dissociation of CrkII from the tyrosine kinase complex (3).

Background References

1. Zvara, A. et al. (2001) *Oncogene* 20, 951-961.
2. Kiyokawa, E. et al. (1997) *Crit. Rev. Oncog.* 8, 329-342.
3. Rosen, M.K. et al. (1995) *Nature* 374, 477-9.
4. Amoui, M. and Miller, W.T. (2000) *Cell. Signal.* 12, 637-643.
5. Koval, A. P. et al. (1998) *Biochem. J.* 330, 923-932.
6. Hashimoto, Y. et al. (1998) *J. Biol. Chem.* 273, 17186-17191.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **Hm:** Hamster

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's

terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.