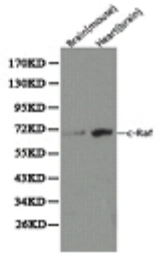
E90223

c-Raf Polyclonal Antibody

Catalog Number: E90223
Amount: 100ul
Background: A-Raf, B-Raf and c-Raf (Raf-1) are the main effectors recruited by GTP-bound Ras to activate the MEK-MAP kinase pathway (1). Activation of c-Raf is the best understood and involves phosphorylation at multiple activating sites including Ser338, Tyr341, Thr491, Ser494, Ser497 and Ser499 (2). p21-activated protein kinase (PAK) has been shown to phosphorylate c-Raf at Ser338 and the Src family phosphorylates Tyr341 to induce c-Raf activity (3,4). Ser338 of c-Raf corresponds to similar sites in A-Raf (Ser299) and B-Raf (Ser445), although this site is constitutively phosphorylated in B-Raf (5). Inhibitory 14-3-3 binding sites on c-Raf (Ser259 and Ser621) can be phosphorylated by Akt and AMPK, respectively (6,7). While A-Raf, B-Raf and c-Raf are similar in sequence and function, differential regulation has been observed (8). Of particular interest, B-Raf contains three consensus Akt phosphorylation sites (Ser364, Ser428 and Thr439) and lacks a site equivalent to Tyr341 of c-Raf (8,9). The B-Raf mutation V600E results in elevated kinase activity and is commonly found in malignant melanoma (10). Six residues of c-Raf (Ser29, Ser43, Ser289, Ser296, Ser301 and Ser642) become hyperphosphorylated in a manner consistent with c-Raf inactivation. The hyperphosphorylation of these six sites is dependent on downstream MEK signaling and renders c-Raf unresponsive to subsequent activation events (11).
Species: Rabbit
Isotype: IgG
Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Synonyms: RAF1;CRAF;NS5;Raf-1;c-Raf ;
Immunogen: C term -peptideof human c-Raf
Purification: Affinity purification
Reactivity: H M R
Applications: WB
Molecular Weight: 73kDa
Swiss-Prot No. : P04049
Gene ID: 5894
References: 1. Avruch, J. et al. (1994) Trends Biochem. Sci. 19, 279-283. 2. Chong, H. et al. (2001) EMBO J. 20, 3716-3727. 3. King, A.J. et al. (1998) Nature 396, 180-183. 4. Fabian, J.R. et al. (1993) Mol. Cell Biol. 13, 7170-7179. 5. Mason, C.S. et al. (1999) EMBO J. 18, 2137-2148. 6. Zimmermann, S. and Moelling, K. (1999) Science 286, 1741-1744. 7. Sprenkle, A.B. et al. (1997) FEBS Lett. 403, 254-258. 8. Marais, R. et al. (1997) J. Biol. Chem. 272, 4378-4383. 9. Guan, K.L. et al. (2000) J. Biol. Chem. 275, 27354-27359. 10. Davies, H. et al. (2002) Nature 417, 949-954. 11. Dougherty, M.K. et al. (2005) Mol. Cell 17, 215-224.

For Research Use Only

WB 1:500 - 1:2000



Western blot analysis of extracts of mouse brain and mouse heart tissue, using c-Raf antibody.

For Research Use Only