

Anti-Phospho-RAF1 (Ser259) Antibody (5X237)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	5X237
Purification:	Affinity-chromatography

Applications

Verified Activity:	<p>1. Western Blot</p> <ul style="list-style-type: none">-Positive WB detected in Hela whole cell lysate(treated with Calyculin A or EGF)-All lanes Phospho-RAF1 antibody at 1.18µg/ml-Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution-Predicted band size: 73 KDa-Observed band size: 73 KDa <p>2. IHC image of TMAH-00953 diluted at 1:100 and staining in paraffin-embedded human endometrial cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.</p> <p>3. Immunofluorescence staining of HepG2 cells with TMAH-00953 at 1:100,counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).</p>
Application:	ELISA, WB, IHC, IF
Recommended	WB:1:500-1:5000; IHC:1:50-1:200; IF:1:20-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen: A synthetic peptide: Human Phospho-RAF1 (S259)
Antigen Species: Human
Gene ID: 5894
Uniprot ID: P04049
Synonyms: p-RAF1 (S259);p-RAF1 (Ser259);Phospho-RAF1 (S259);RAF1 (p-S259);RAF1 (p-Ser259)
Biology Area: Signal Transduction

Research Background

Serine/threonine-protein kinase that acts as a regulatory link between the membrane-associated Ras GTPases and the MAPK/ERK cascade, and this critical regulatory link functions as a switch determining cell fate decisions including proliferation, differentiation, apoptosis, survival and oncogenic transformation. RAF1 activation initiates a mitogen-activated protein kinase (MAPK) cascade that comprises a sequential phosphorylation of the dual-specific MAPK kinases (MAP2K1/MEK1 and MAP2K2/MEK2) and the extracellular signal-regulated kinases (MAPK3/ERK1 and MAPK1/ERK2). The phosphorylated form of RAF1 (on residues Ser-338 and Ser-339, by PAK1) phosphorylates BAD/Bcl2-antagonist of cell death at 'Ser-75'. Phosphorylates adenylyl cyclases: ADCY2, ADCY5 and ADCY6, resulting in their activation. Phosphorylates PPP1R12A resulting in inhibition of the phosphatase activity. Phosphorylates TNNT2/cardiac muscle troponin T. Can promote NF- κ B activation and inhibit signal transducers involved in motility (ROCK2), apoptosis (MAP3K5/ASK1 and STK3/MST2), proliferation and angiogenesis (RB1). Can protect cells from apoptosis also by translocating to the mitochondria where it binds BCL2 and displaces BAD/Bcl2-antagonist of cell death. Regulates Rho signaling and migration, and is required for normal wound healing. Plays a role in the oncogenic transformation of epithelial cells via repression of the TJ protein, occludin (OCLN) by inducing the up-regulation of a transcriptional repressor SNAI2/SLUG, which induces down-regulation of OCLN. Restricts caspase activation in response to selected stimuli, notably Fas stimulation, pathogen-mediated macrophage apoptosis, and erythroid differentiation.

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