Data Sheet (Cat.No.TMAC-03213)

Anti-Phospho-ERK1/2 (Thr185) Antibody (1B497)

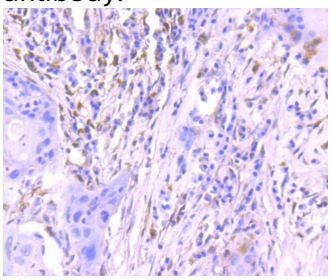
Product Details

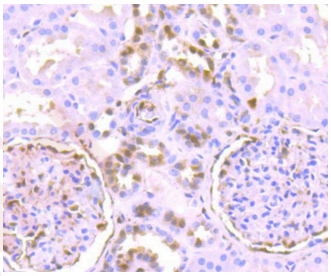
Ig Type:	IgG
Reactivity:	Human
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 42/44 kDa.
Clone:	1B497
Purification:	ProA affinity purified

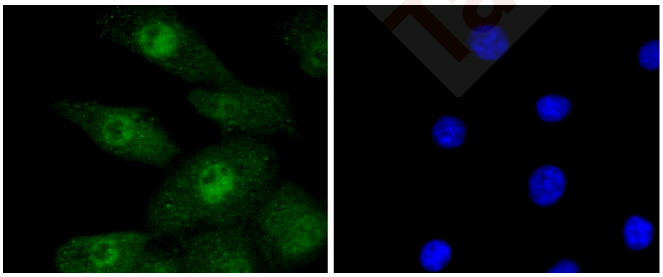
Applications

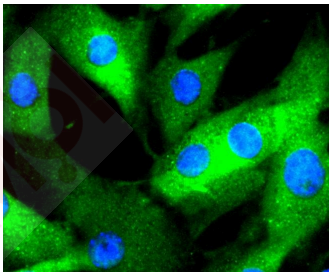
Verified Activity:

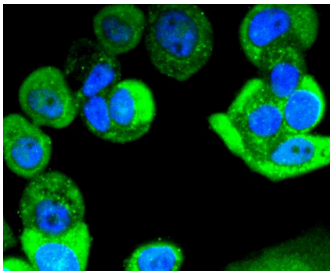
1. Immunohistochemical analysis of paraffin-embedded human lung cancer tissue using anti-Phospho-Erk1 (T202)+Erk2 (T185) antibody. Counter stained with hematoxylin.
2. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Phospho-Erk1 (T202)+Erk2 (T185) antibody. Counter stained with hematoxylin.
3. ICC staining Phospho-Erk1 (T202)+Erk2 (T185) in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
4. ICC staining Phospho-Erk1 (T202)+Erk2 (T185) in NIH/3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
5. ICC staining Phospho-Erk1 (T202)+Erk2 (T185) in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
6. Flow cytometric analysis of MCF-7 cells with Phospho-Erk1 (T202)+Erk2 (T185) antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as secondary antibody.

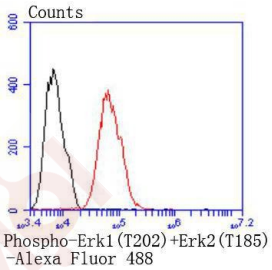












Application: FCM,ICC,IHC,WB

Recommended: WB: 1:1000; IHC: 1:50-200; ICC: 1:100-500; FCM: 1:50-100

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 synthesized phosphopeptide: human Erk2 around the phosphorylation site of Thr185

Antigen Species: Human

Uniprot ID: P27361 & P28482

Synonyms: Erk2;ERK-2;P44MAPK;PRKM3;p44-MAPK;HS44KDAP;ERK1/2 (p-T185);HUMKER1A;ERK1;ERK-1;Phospho-ERK1/2 (T185);ERT2;ERK1/2 (p-Thr185);P44ERK1;p44-ERK1;p-ERK1/2 (Thr185);p-ERK1/2 (T185)

Research Background

Mitogen-activated protein kinases (MAPKs) are a widely conserved family of serine/threonine protein kinases involved in many cellular programs, such as cell proliferation, differentiation, motility, and death. The p44/42 MAPK

(Erk1/2) signaling pathway can be activated in response to a diverse range of extracellular stimuli including mitogens, growth factors, and cytokines, and research investigators consider it an important target in the diagnosis and treatment of cancer. Upon stimulation, a sequential three-part protein kinase cascade is initiated, consisting of a MAP kinase kinase kinase (MAPKKK or MAP3K), a MAP kinase kinase (MAPKK or MAP2K), and a MAP kinase (MAPK). Multiple p44/42 MAP3Ks have been identified, including members of the Raf family, as well as Mos and Tpl2/COT. MEK1 and MEK2 are the primary MAPKKs in this pathway. MEK1 and MEK2 activate p44 and p42 through phosphorylation of activation loop residues Thr202/Tyr204 and Thr185/Tyr187, respectively. Several downstream targets of p44/42 have been identified, including p90RSK and the transcription factor Elk-1. p44/42 are negatively regulated by a family of dual-specificity (Thr/Tyr) MAPK phosphatases, known as DUSPs or MKPs, along with MEK inhibitors, such as U0126 and PD98059.

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