磷酸化丝裂原活化蛋白激酶 12 抗体

产品货号： mIR3292

英文名称： phospho-ERK1 (Thr197 + Thr202)

中文名称： 磷酸化丝裂原活化蛋白激酶 1/2 抗体

别　　名： phospho-ERK1(Thr197/Thr202); p-ERK1(Thr197/Thr202); ERK 1; ERK 2; ERK-2; ERK1; ERK2; ERT1; ERT2; Extracellular signal regulated kinase 1; Extracellular signal regulated kinase 1; Extracellular signal regulated kinase 2; Extracellular signal regulated kinase 2; Extracellular signal-regulated kinase 2; HS44KDAP; HUMKER1A; Insulin stimulated MAP2 kinase; MAP kinase 1; MAP kinase 2; MAP kinase isoform p42; MAP kinase isoform p44; MAPK 1; MAPK 2; MAPK1; MAPK2; MGC20180; Microtubule associated protein 2 kinase; Mitogen activated protein kinase 1; Mitogen activated protein kinase 1; Mitogen activated protein kinase 2; Mitogen-activated protein kinase 1; Mitogen-activated protein kinase 2; MK01_MOUSE; p38; p40; p41; p41mapk; p42 MAPK; p42-MAPK; p42MAPK; p42MAPK; p44 ERK1; p44 MAPK; p44ERK1; p44ERK1; p44MAPK; p44MAPK; PRKM 1; PRKM 1; PRKM 2; PRKM 2; PRKM1; PRKM2; Protein kinase mitogen activated 1; Protein kinase mitogen activated 1; Protein kinase mitogen activated 2; Protein kinase mitogen activated 2; Protein tyrosine kinas.

产品类型： 磷酸化抗体

研究领域： 免疫学　神经生物学　信号转导　干细胞　激酶和磷酸酶

抗体来源： Rabbit

克隆类型： Polyclonal

交叉反应： Human, Mouse, Rat, Chicken, Dog, Cow, Horse, Rabbit, Guinea Pig,

产品应用： WB=1:500-2000 ELISA=1:500-1000 IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500 （石蜡切片需做抗原修复）

not yet tested in other applications.

optimal dilutions/concentrations should be determined by the end user.

分 子 量： 41kDa

细胞定位： 细胞核 细胞浆

性　　状： Lyophilized or Liquid

浓　　度： 1mg/ml

免 疫 原： KLH conjugated Synthesised phosphopeptide derived from human ERK1 around the phosphorylation site of Thr197/Thr202:DH(p-T)GFL(p-T)EY

亚　　型： IgG

纯化方法： affinity purified by Protein A

储 存 液： 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

保存条件： Store at -20 ° C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20° C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ° C.

PubMed： PubMed

产品介绍： The protein encoded by this gene is a member of the MAP kinase family. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. The activation of this kinase requires its phosphorylation by upstream kinases. Upon activation, this kinase translocates to the nucleus of the stimulated cells, where it phosphorylates nuclear targets. Two alternatively spliced transcript variants encoding the same protein, but differing in the UTRs, have been reported for this gene.

Function:

Serine/threonine kinase which acts as an essentialcomponent of the MAP kinase signal transduction pathway. MAPK1/ERK2and MAPK3/ERK1 are the 2 MAPKs which play an important role in theMAPK/ERK cascade. They

participate also in a signaling cascadeinitiated by activated KIT and KITLG/SCF. Depending on the cellularcontext, the MAPK/ERK cascade mediates diverse biological functionssuch as cell growth, adhesion, survival and differentiation throughthe regulation of transcription, translation, cytoskeletalrearrangements. The MAPK/ERK cascade plays also a role ininitiation and regulation of meiosis, mitosis, and postmitoticfunctions in differentiated cells by phosphorylating a number oftranscription factors. About 160 substrates have already beendiscovered for ERKs. Many of these substrates are localized in thenucleus, and seem to participate in the regulation of transcriptionupon stimulation. However, other substrates are found in thecytosol as well as in other cellular organelles, and those areresponsible for processes such as translation, mitosis andapoptosis. Moreover, the MAPK/ERK cascade is also involved in theregulation of the endosomal dynamics, including lysosome processingand endosome cycling through the perinuclear recycling compartment(PNRC); as well as in the fragmentation of the Golgi apparatusduring mitosis. The substrates include transcription factors (suchas ATF2, BCL6, ELK1, ERF, FOS, HSF4 or SPZ1), cytoskeletal elements(such as CANX, CTTN, GJA1, MAP2, MAPT, PXN, SORBS3 or STMN1),regulators of apoptosis (such as BAD, BTG2, CASP9, DAPK1, IER3,MCL1 or PPARG), regulators of translation (such as EIF4EBP1) and avariety of other signaling-related molecules (like ARHGEF2, DCC,FRS2 or GRB10). Protein kinases (such as RAF1, RPS6KA1/RSK1,RPS6KA3/RSK2, RPS6KA2/RSK3, RPS6KA6/RSK4, SYK, MKNK1/MNK1,MKNK2/MNK2, RPS6KA5/MSK1, RPS6KA4/MSK2, MAPKAPK3 or MAPKAPK5) andphosphatases (such as DUSP1, DUSP4, DUSP6 or DUSP16) are othersubstrates which enable the propagation the MAPK/ERK signal toadditional cytosolic and nuclear targets, thereby extending thespecificity of the cascade. Mediates phosphorylation of TPR inrespons to EGF stimulation. May play a role in the spindle assemblycheckpoint. Phosphorylates PML and promotes its interaction withPIN1, leading to PML degradation (By similarity). [FUNCTION] Acts as a transcriptional repressor. Binds to a[GC]AAA[GC] consensus sequence. Repress the expression ofinterferon gamma-induced genes. Seems to bind to the promoter ofCCL5, DMP1, IFIH1, IFITM1, IRF7, IRF9, LAMP3, OAS1, OAS2, OAS3 andSTAT1. Transcriptional activity is independent of kinase activity(By similarity).

Subunit:

Binds both upstream activators and downstream substratesin multimolecular complexes. Interacts with ADAM15, ARHGEF2, ARRB2,DAPK1 (via death domain), HSF4, IER3, IPO7, DUSP6, NISCH, SGK1, andisoform 1 of NEK2. Interacts (via phosphorylated form) with TPR(via C-terminus region and phosphorylated form); the interactionrequires dimerization of MAPK1/ERK2 and increases following EGFstimulation (By similarity). Interacts (phosphorylated form) withCAV2 ('Tyr-19'-phosphorylated form); the interaction, promoted byinsulin, leads to nuclear location and MAPK1 activation (Bysimilarity). Interacts with DCC (By similarity). Interacts withMORG1, PEA15 and MKNK2. MKNK2 isoform 1 binding prevents fromdephosphorylation and inactivation. The phosphorylated forminteracts with PML (By similarity).

Subcellular Location:

Cytoplasm, cytoskeleton, spindle (Bysimilarity). Nucleus. Cytoplasm, cytoskeleton, centrosome (Bysimilarity). Cytoplasm. Note=Associated with the spindle duringprometaphase and metaphase (By similarity). PEA15-binding andphosphorylated DAPK1 promote its cytoplasmic retention.Phosphorylation at Ser-244 and Ser-246 as well asautophosphorylation at Thr-188 promote nuclear localization (Bysimilarity).

Tissue Specificity:

Widely expressed.

Post-translational modifications:

Dually phosphorylated on Thr-183 and Tyr-185, which activatesthe enzyme. Ligand-activated ALK induces tyrosine phosphorylation(By similarity). Dephosphorylated by PTPRJ at Tyr-185 (Bysimilarity). Phosphorylated upon FLT3 and KIT signaling (Bysimilarity).

Similarity:

Belongs to the protein kinase superfamily. CMGCSer/Thr protein kinase family. MAP kinase subfamily.

Contains 1 protein kinase domain.

SWISS:

P27361

Gene ID:

5595

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.