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Rabbit Anti-phospho-ERK1 (Thr202/Tyr204) + ERK2 (Thr183/Tyr185) antibody

SL1646R

文献引用 PubMed：	**Specific References(2)**|SL1646R has been referenced in 2 publications. **[IF=3.33]**Wang, Jianping, et al. "Bone Marrow Mononuclear Cell Transplantation Promotes Therapeutic Angiogenesis via Upregulation of the VEGF-VEGFR2 Signaling Pathway in a Rat Model of Vascular Dementia." Behavioural Brain Research (2014).**WB;Rat**. PubMed:24589546 **[IF=1.08]**Hirata, Azumi, et al. "Homeobox family Hoxc localization during murine palate formation." Congenital Anomalies (2016).**IHC-P;Mouse**. PubMed:26718736

Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit,Guinea Pig,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg /testIF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	41kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from mouse ERK1/2 around the phosphorylation site of Thr202/Tyr204:FL(p-T)E(p-Y)VA
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	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
Product Detail:	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:
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).

SWISS:
P28482

Gene ID:
5595

Database links:

Entrez Gene: 5594Human

Entrez Gene: 5595Human

Entrez Gene: 26413Mouse

Entrez Gene: 26417Mouse

Entrez Gene: 116590Rat

Entrez Gene: 50689Rat

SwissProt: P27361Human

SwissProt: P28482Human

SwissProt: P63085Mouse

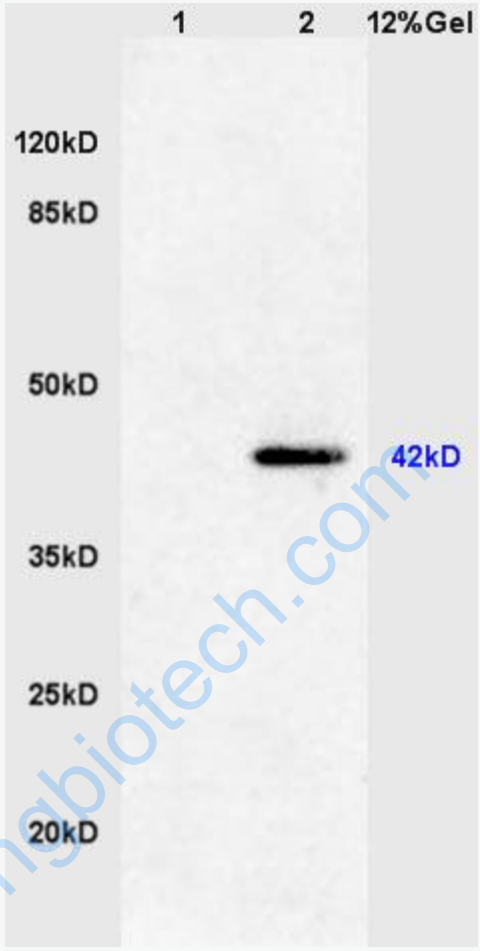
SwissProt: Q63844Mouse

SwissProt: P21708Rat

SwissProt: P63086Rat

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

Picture:



Sample:

Heart (Mouse) Lysate at 30 ug

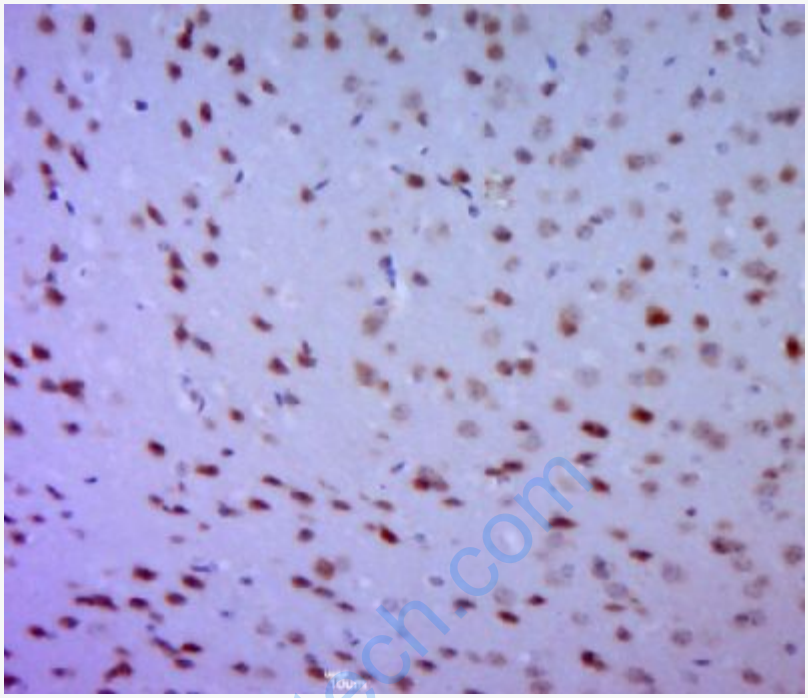
SP2/0 Cell Lysate at 30 ug

Primary: Anti-phospho-ERK1(Thr202/Tyr204)+ERK2(Thr183/Tyr185) (SL1646R) at 1:200 dilution;

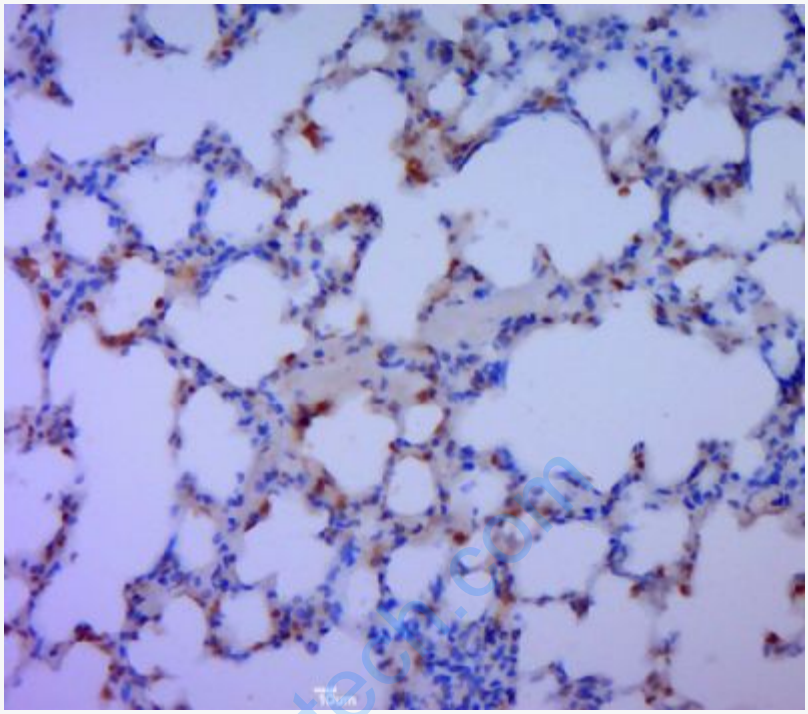
Secondary: HRP conjugated Goat Anti-Rabbit IgG(SL1646R) at 1: 3000 dilution;

Predicted band size : 42kD

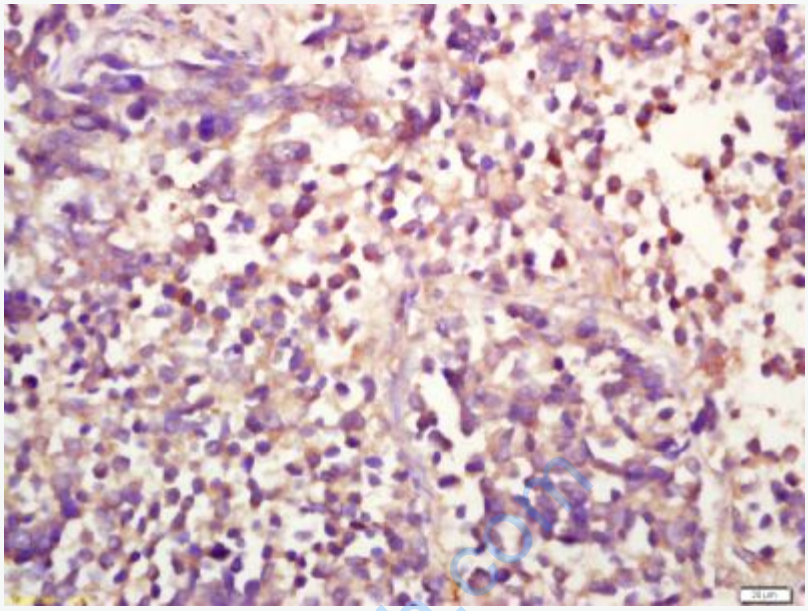
Observed band size : 42kD



Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (P-ERK 1+ ERK 2) Polyclonal Antibody, Unconjugated (SL1646R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat lung tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (P-ERK 1+ ERK 2) Polyclonal Antibody, Unconjugated (SL1646R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-phospho-ERK1(Thr202/Tyr204)+ERK2(Thr183/Tyr185) Polyclonal Antibody, Unconjugated(SL1646R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

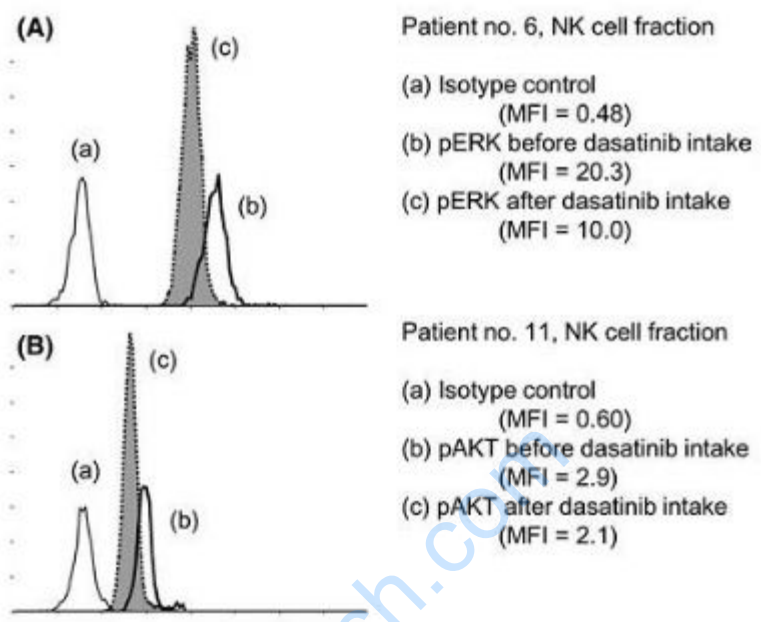


Figure 6. Representative histograms showing expression changes of pERK (A) and pAKT (B) in the natural killer (NK) cell fraction.

From《Cancer Medicine》(2016.6): PublitionDirect effect of dasatinib on signal transduction pathways associated with a rapid mobilization of cytotoxic lymphocytes , IF:2.5

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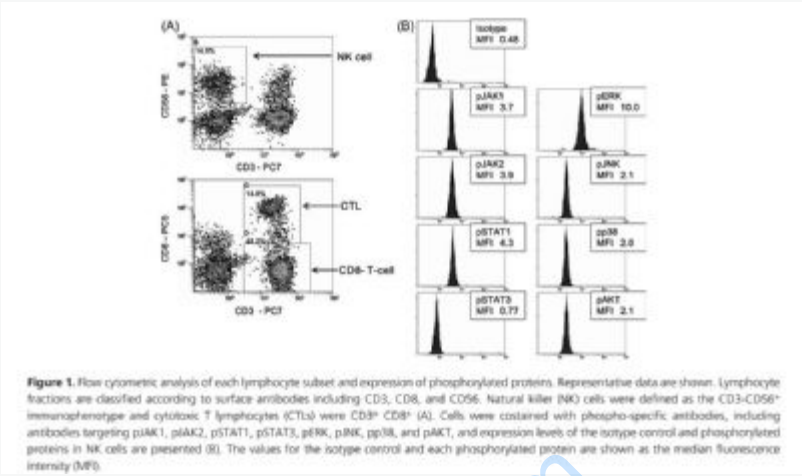

Figure 1. Flow cytometric analysis of each lymphocyte subset and expression of phosphorylated proteins. Representative data are shown. Lymphocyte fractions are classified according to surface antibodies including CD3, CD8, and CD56. Natural killer (NK) cells were defined as the $CD3^{-}CD56^{+}$ immunophenotype and cytotoxic T lymphocytes (CTLs) were $CD3^{+}$ $CD8^{+}$ (A). Cells were costained with phospho-specific antibodies, including antibodies targeting pJAK1, pJAK2, pSTAT1, pSTAT3, pERK, pJNK, pp38, and pAKT, and expression levels of the isotype control and phosphorylated proteins in NK cells are presented (B). The values for the isotype control and each phosphorylated protein are shown as the median fluorescence intensity (MFI).

cells: human