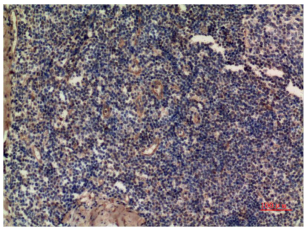
ERK1 (7E7) Mouse mAb

db6567 **Package : 50μL 100μL**

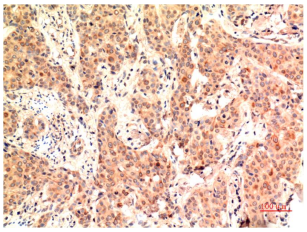
Product Name : ERK1 (7E7) Mouse mAb
Cat.No.: db6567
Synonyms : MAPK; Mitogen-activated protein Kinase; PRKM2;MK01
Application : IHC-P
Reactivity : Human, Rat, Mouse
Host species : Mouse

Background	Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK1/ERK2 and MAPK3/ERK1 are the 2 MAPKs which play an important role in the MAPK/ERK cascade. They participate also in a signaling cascade initiated by activated KIT and KITLG/SCF. Depending on the cellular context, the MAPK/ERK cascade mediates diverse biological functions such as cell growth, adhesion, survival and differentiation through the regulation of transcription, translation, cytoskeletal rearrangements. The MAPK/ERK cascade plays also a role in initiation and regulation of meiosis, mitosis, and postmitotic functions in differentiated cells by phosphorylating a number of transcription factors. About 160 substrates have already been discovered for ERKs. Many of these substrates are localized in the nucleus, and seem to participate in the regulation of transcription upon stimulation. However, other substrates are found in the cytosol as well as in other cellular organelles, and those are responsible for processes such as translation, mitosis and apoptosis. Moreover, the MAPK/ERK cascade is also involved in the regulation of the endosomal dynamics, including lysosome processing and endosome cycling through the perinuclear recycling compartment (PNRC); as well as in the fragmentation of the Golgi apparatus during mitosis. The substrates include transcription factors (such as 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 a variety of other signaling-related molecules (like ARHGEF2, 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) and phosphatases (such as DUSP1, DUSP4, DUSP6 or DUSP16) are other substrates which enable the propagation the MAPK/ERK signal to additional cytosolic and nuclear targets, thereby extending the specificity of the cascade.
Immunogen	Purified recombinant protein expressed in E.coli
Gene ID	5595
Swiss Prot	P27361

Synonyms	MAPK; Mitogen-activated protein Kinase; PRKM2;MK01
Reactivity	Human, Rat, Mouse
Application	IHC-P
Recommended dilution	IHC: 1:50-1:100
Calculated MW	44 kDa
Host species	Mouse
Clonality	Monoclonal
Clonality No.	7E7-10H1-7B6
Isotype	IgG1
Purity	Affinity Purification
Conjugation	Un-conjugated
Storage Stability	Store at -20°C. Supplied in PBS, 50% Glycerol(pH 7.3), 0.02% sodium azide and 0.5% BSA . Stable for 12 months from date of receipt.



Immunohistochemistry analysis of paraffin-embedded Human Tonsil Tissue using ERK1 (7E7) antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Immunohistochemical analysis of paraffin-embedded Human tonsils using ERK1 (7E7) antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.