ARG51673
anti-SEK1 / MKK4 phospho (Ser80) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SEK1 / MKK4 phospho (Ser80)
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	SEK1 / MKK4
Species	Human
Immunogen	Peptide sequence around phosphorylation site of serine 80 (T-H-S(p)-I-E) derived from Human SEK1/MKK4.
Conjugation	Un-conjugated
Alternate Names	MEK 4; MAPK/ERK kinase 4; PRKMK4; SAPKK-1; SAPK/ERK kinase 1; SKK1; JNK-activating kinase 1; EC 2.7.12.2; MEK4; MAP kinase kinase 4; c-Jun N-terminal kinase kinase 1; SEK1; SAPKK1; MAPKK4; Stress-activated protein kinase kinase 1; JNKK1; MKK4; SERK1; SAPK kinase 1; Dual specificity mitogen-activated protein kinase kinase 4; JNKK; MAPKK 4

Application Instructions

Application table

Application	Dilution
ICC/IF	1:100 - 1:200
IHC-P	1:50 - 1:100
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

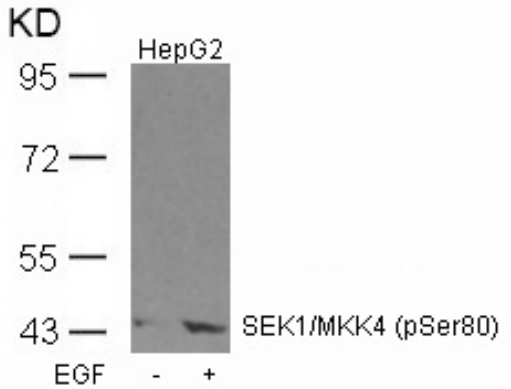
Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.
Buffer	PBS (without Mg2+ and Ca2+, pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

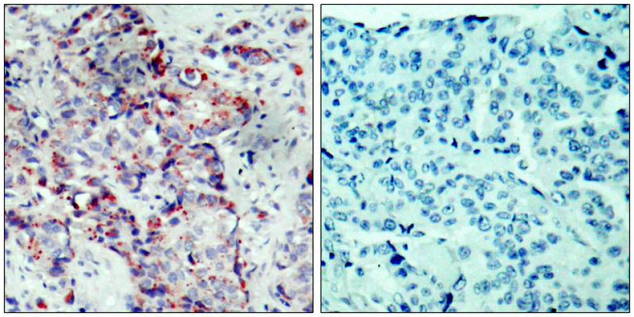
Database links	GeneID: 26398 Mouse GeneID: 6416 Human Swiss-port # P45985 Human Swiss-port # P47809 Mouse
Gene Symbol	MAP2K4
Gene Full Name	mitogen-activated protein kinase kinase 4
Background	Dual specificity kinase that activates the JUN kinases MAPK8 (JNK1) and MAPK9 (JNK2) as well as MAPK14 (p38) but not MAPK1 (ERK2) or MAPK3 (ERK1).
Function	Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K7/MKK7, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7/MKK7 seems to be the prerequisite for JNK activation at least in response to proinflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14. [UniProt]
Research Area	Signaling Transduction antibody
Calculated Mw	44 kDa
PTM	Activated by phosphorylation on Ser-257 and Thr-261 by MAP kinase kinase kinases (MAP3Ks).

Images



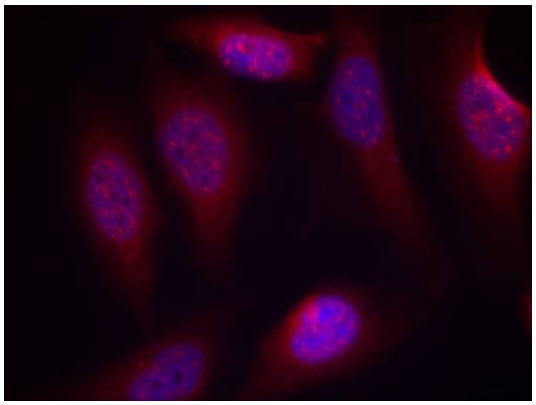
ARG51673 anti-SEK1 / MKK4 phospho (Ser80) antibody WB image

Western blot: Extracts from HepG2 cells untreated or treated with EGF stained with ARG51673 anti-SEK1 / MKK4 phospho (Ser80) antibody.



ARG51673 anti-SEK1 / MKK4 phospho (Ser80) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast carcinoma tissue stained with ARG51673 anti-SEK1 / MKK4 phospho (Ser80) antibody (left) or the same antibody preincubated with blocking peptide (right).



ARG51673 anti-SEK1 / MKK4 phospho (Ser80) antibody ICC/IF image

Immunofluorescence: methanol-fixed HeLa cells stained with ARG51673 anti-SEK1 / MKK4 phospho (Ser80) antibody.