

MAP3K5 / ASK1 Antibody (aa49-98) Rabbit Polyclonal Antibody Catalog # ALS15014

Specification

MAP3K5 / ASK1 Antibody (aa49-98) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC <u>099683</u> Human Rabbit Polyclonal 155kDa KDa

MAP3K5 / ASK1 Antibody (aa49-98) - Additional Information

Gene ID 4217

Other Names Mitogen-activated protein kinase kinase kinase 5, 2.7.11.25, Apoptosis signal-regulating kinase 1, ASK-1, MAPK/ERK kinase kinase 5, MEK kinase 5, MEKK 5, MAP3K5, ASK1, MAPKKK5, MEKK5

Target/Specificity ASK1 (Ab-83) Antibody detects endogenous levels of total ASK1 protein.

Reconstitution & Storage Store at -20°C for up to one year.

Precautions MAP3K5 / ASK1 Antibody (aa49-98) is for research use only and not for use in diagnostic or therapeutic procedures.

MAP3K5 / ASK1 Antibody (aa49-98) - Protein Information

Name MAP3K5

Synonyms ASK1, MAPKKK5, MEKK5

Function

Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signaling for determination of cell fate such as differentiation and survival. Plays a crucial role in the apoptosis signal transduction pathway through mitochondria-dependent caspase activation. MAP3K5/ASK1 is required for the innate immune response, which is essential for host defense against a wide range of pathogens. Mediates signal transduction of various stressors like oxidative stress as well as by receptor-mediated inflammatory signals, such as the tumor necrosis factor (TNF) or lipopolysaccharide (LPS). Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP



kinase kinases like MAP2K4/SEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs and c-jun N-terminal kinases (JNKs). Both p38 MAPK and JNKs control the transcription factors activator protein-1 (AP-1).

Cellular Location

Cytoplasm. Endoplasmic reticulum. Note=Interaction with 14-3-3 proteins alters the distribution of MAP3K5/ASK1 and restricts it to the perinuclear endoplasmic reticulum region

Tissue Location Abundantly expressed in heart and pancreas.

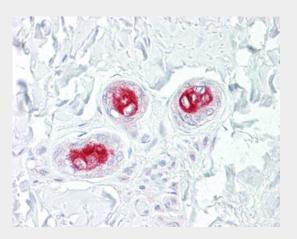
Volume 50 μl

MAP3K5 / ASK1 Antibody (aa49-98) - Protocols

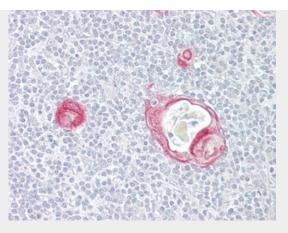
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

MAP3K5 / ASK1 Antibody (aa49-98) - Images



Anti-MAP3K5 / ASK1 antibody IHC of human skin, sweat ducts.



Anti-MAP3K5 / ASK1 antibody IHC of human thymus. MAP3K5 / ASK1 Antibody (aa49-98) - Background

Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Mediates signaling for determination of cell fate such as differentiation and survival. Plays a crucial role in the apoptosis signal transduction pathway through mitochondria-dependent caspase activation. MAP3K5/ASK1 is required for the innate immune response, which is essential for host defense against a wide range of pathogens. Mediates signal transduction of various stressors like oxidative stress as well as by receptor-mediated inflammatory signals, such as the tumor necrosis factor (TNF) or lipopolysaccharide (LPS). Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade and the p38 MAPK signal transduction cascade through the phosphorylation and activation of several MAP kinase kinases like MAP2K4/SEK1, MAP2K3/MKK3, MAP2K6/MKK6 and MAP2K7/MKK7. These MAP2Ks in turn activate p38 MAPKs and c-jun N-terminal kinases (JNKs). Both p38 MAPK and JNKs control the transcription factors activator protein-1 (AP-1).

MAP3K5 / ASK1 Antibody (aa49-98) - References

Wang X.S., et al.J. Biol. Chem. 271:31607-31611(1996). Ichijo H., et al.Science 275:90-94(1997). Ota T., et al.Nat. Genet. 36:40-45(2004). Mungall A.J., et al.Nature 425:805-811(2003). Saitoh M., et al.EMBO J. 17:2596-2606(1998).