

ASK1, Active recombinant protein
ASK, Apoptosis signal-regulating kinase 1 (ASK1)
Catalog # PBV11286r

Specification

ASK1, Active recombinant protein - Product info

Primary Accession	Q99683
Concentration	0.1
Calculated MW	~60.0 kDa KDa

ASK1, Active recombinant protein - Additional Info

Gene ID	4217
Gene Symbol	ASK1

Other Names

ASK, Apoptosis signal-regulating kinase 1 (ASK1)

Source	Baculovirus (Sf9 insect cells)
Assay&Purity	SDS-PAGE; ≥95%
Assay2&Purity2	HPLC;
Recombinant	Yes

Format

Liquid

Storage

-80°C; Recombinant proteins in storage buffer (50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 0.25 mM DTT, 0.1 mM EGTA, 0.1 mM EDTA, 0.1 mM PMSF, 25% glycerol).

ASK1, Active recombinant protein - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ASK1, Active recombinant protein - Images

ASK1, Active recombinant protein - Background

Mitogen-activated protein kinase (MAPK) signaling cascades include MAPK or ERK, MAPK kinase (MKK or MEK), and MAPK kinase kinase (MAPKKK or MEKK). MAPKK kinase/MEKK phosphorylates and activates its downstream protein kinase, MAPK kinase/MEK, which in turn activates MAPK. ASK1 (MAPKKK5) contains 1,374 amino acids with all 11 kinase subdomains. Northern blot analysis shows

that MAPKKK5 transcript is abundantly expressed in human heart and pancreas. The MAPKKK5 protein phosphorylates and activates MKK4 (aliases SERK1, MAPKK4) in vitro, and activates c-Jun N-terminal kinase (JNK)/stress-activated protein kinase (SAPK) during transient expression in COS and 293 cells; MAPKKK5 does not activate MAPK/ERK (1). ASK1 also activates MKK3, MKK4 (SEK1), and MKK6. Overexpression of ASK1 induces apoptotic cell death, and ASK1 is activated in cells treated with tumor necrosis factor- α (2). ASK1 interacts with members of the TRAF family and is activated by TRAF2 in the TNF-signaling pathway. After activation by TRAF2, ASK1 activates MKK4, which in turn activates JNK. Thus, ASK1 is a mediator of TRAF2-induced JNK activation (3). Fas triggers cell death specifically in motor neurons by transcriptional upregulation of neuronal nitric oxide synthase (nNOS) mediated by p38 kinase. ASK1 and Daxx act upstream of p38 in the Fas signaling pathway, which was unique to motor neurons and may contribute to motor neuron loss in ALS. (4)

ASK1, Active recombinant protein - References

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