



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#8662

ASK1 (D11C9) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 155	Source/Isotype: Rabbit IgG	UniProt ID: #Q99683	Entrez-Gene Id: 4217
-------------------------------	--------------------------------	-----------------------------------	-------------------------	--------------------------------------	-------------------------------	--------------------------------

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ASK1 (D11C9) Rabbit mAb recognizes endogenous levels of total ASK1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile280 of human ASK1 protein.

Background

Apoptosis signal-regulating kinase 1 (ASK1), a MAP kinase kinase kinase, plays essential roles in stress-induced apoptosis (1,2). ASK1 is activated in response to a variety of stress-related stimuli through distinct mechanisms and activates MKK4 and MKK3, which in turn activate JNK and p38 (3). Overexpression of ASK1 activates JNK and p38 and induces apoptosis in several cell types through signals involving the mitochondrial cell death pathway. Embryonic fibroblasts or primary neurons derived from ASK1^{-/-} mice are resistant to stress-induced JNK and p38 activation as well as cell death (4,5). Phosphorylation at Ser967 is essential for ASK1 association with 14-3-3 proteins and suppression of cell death (6). Oxidative stress induces dephosphorylation of Ser967 and phosphorylation of Thr845 in the activation loop of ASK1, both of which are correlated with ASK1 activity and ASK1-dependent apoptosis (7,8). Akt phosphorylates ASK1 at Ser83, which attenuates ASK1 activity and promotes cell survival (9).

Background References

1. Ichijo, H. et al. (1997) *Science* 275, 90-94.
2. Wang, X.S. et al. (1996) *J. Biol. Chem.* 271, 31607-31611.
3. Matsuzawa, A. and Ichijo, H. (2001) *J. Biochem. (Tokyo)* 130, 1-8.
4. Tobiume, K. et al. (2001) *EMBO Rep.* 2, 222-228.
5. Nishitoh, H. et al. (2002) *Genes Dev.* 16, 1345-1355.
6. Zhang, L. et al. (1999) *Proc. Natl. Acad. Sci. USA* 96, 8511-8515.
7. Tobiume, K. et al. (2002) *J. Cell. Physiol.* 191, 95-104.
8. Goldman, E.H. et al. (2004) *J. Biol. Chem.* in press, .
9. Kim, A.H. et al. (2001) *Mol. Cell. Biol.* 21, 893-901.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no

force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.