

SignalSilence® MKK7 siRNA I (Mouse Specific)

✓ 10 µM in 300 µl (3 nmol)

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New 04/13

For Research Use Only. Not For Use In Diagnostic Procedures.

Species Cross-Reactivity: M, (R)

Description: SignalSilence® MKK7 siRNA I (Mouse Specific) from Cell Signaling Technology (CST) allows the researcher to specifically inhibit MKK7 expression using RNA interference, a method whereby gene expression can be selectively silenced through the delivery of double stranded RNA molecules into the cell. All SignalSilence® siRNA products from CST are rigorously tested in-house and have been shown to reduce target protein expression by western analysis.

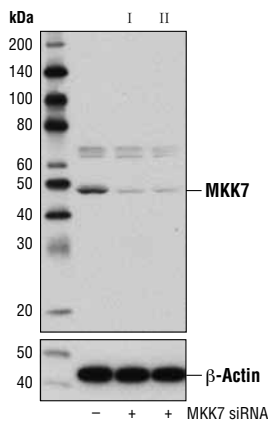
Background: MKK7 is a MAP kinase kinase that serves as a specific activator of the SAPK/JNK pathway (1,2). MKK7 is strongly activated by TNF-α, as well as other environmental stresses, whereas SEK1/MKK4, which activates both p38 and SAPK/JNK pathways, is not activated by TNF-α (2). Sequence alignment of the activation loop of the MAP kinase kinase family members indicates that Ser271 and Thr275 are potential phosphorylation sites that are crucial for the kinase activity.

Specificity/Sensitivity: SignalSilence® MKK7 siRNA I (Mouse Specific) inhibits mouse and rat MKK7 expression.

Directions for Use: CST recommends transfection with 100 nM SignalSilence® MKK7 siRNA I (Mouse Specific) 48 to 72 hours prior to cell lysis. For transfection procedure, follow protocol provided by the transfection reagent manufacturer. Please feel free to contact CST with any questions on use.

Each vial contains the equivalent of 100 transfections, which corresponds to a final siRNA concentration of 100 nM per transfection in a 24-well plate with a total volume of 300 µl per well.

Quality Control: Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.



Western blot analysis of extracts from NIH/3T3 cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), SignalSilence® MKK7 siRNA I (Mouse Specific) (+), or SignalSilence® MKK7 siRNA II (Mouse Specific) #12517 (+), using MKK7 Antibody #4172 (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower). The MKK7 Antibody confirms silencing of MKK7 expression, while the β-Actin (D6A8) Rabbit mAb is used as a loading control.

Entrez-Gene ID #26400
Swiss-Prot Acc. #Q8CE90

Storage: MKK7 siRNA I (Mouse Specific) is supplied in RNAse-free water. Aliquot and store at -20°C.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

- (1) Tournier, C. et al. (1999) *Mol. Cell. Biol.* 19, 1569-1581.
- (2) Moriguchi, T. et al. (1997) *EMBO J.* 16, 7045-7053.