

#6322 Store at -20°C

# SignalSilence® MKK7 siRNA I



✓ 10 µM in 300 µl (100 transfections)

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New 03/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

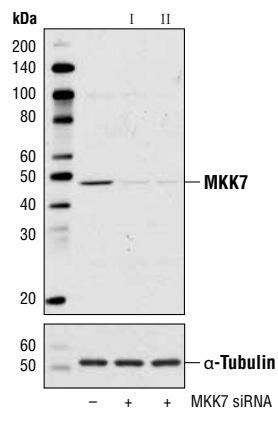
### Species Cross-Reactivity: H

**Description:** SignalSilence® MKK7 siRNA I 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 JNK/SAPK pathway (1,2). MKK7 is activated strongly by TNFalpha, as well as other environmental stresses, whereas SEK1/MKK4, which activates both p38 and JNK/SAPK pathways, is not activated by TNFalpha (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.

**Directions for Use:** CST recommends transfection with 100 nM SignalSilence® MKK7 siRNA I 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.

**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 HeLa cells, transfected with 100 nM SignalSilence® Control siRNA (Unconjugated) #6568 (-), SignalSilence® MKK7 siRNA I (+), or SignalSilence® MKK7 siRNA II #6323 (+) using MKK7 Antibody #4172 (upper) or α-Tubulin (11H10) Rabbit mAb #2125 (lower). The MKK7 Antibody confirms silencing of MKK7 expression, while the α-Tubulin (11H10) Rabbit mAb is used as a loading control.

Entrez-Gene ID #5609  
Swiss-Prot Acc. #O14733

**Storage:** MKK7 siRNA I is supplied in RNase-free water. Aliquot and store at -20°C.

Please visit [www.cellsignal.com](http://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.

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.