

MELK

Maternal embryonic leucine zipper kinase

MELK (Maternal embryonic leucine zipper kinase) belongs to the CAMK serine/threonine protein kinase superfamily. Melk is a protein serine/threonine kinase that is maximally active during mitosis. It is involved in diverse functions such as cell cycle, cytokinesis, mRNA splicing and apoptosis. Expression MELK is expressed in cells of various tissue origins. MELK expression is strongly dependant on cell-cycle: MELK is undetectable in cells which have exited cell cycle. The exact function of MELK is currently unknown, however MELK was shown to be involved in cell cycle progression via the protein phosphatase CDC25B phosphorylation, in cytokinesis, in apoptosis via its interaction with the Bcl-2 family of proapoptotic genes and apoptosis signal-regulating kinase (ASK1) and in inhibition of mRNA splicing during mitosis via its association with NIPP1. MELK function is required for mammary tumorigenesis in vivo.

MELK Inhibitors

JNJ-47117096 hydrochloride

(MELK-T1 hydrochloride) Cat. No.: HY-12420

JNJ-47117096 hydrochloride is potent and selective MELK inhibitor, with an $\rm IC_{50}$ of 23 nM, also effectively inhibits Flt3, with an $\rm IC_{50}$ of 18 nM.

Purity: 98.01%

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

MELK-8a (NVS-MELK8a)

MELK-8a (NVS-MELK8a) is a highly potent and selective maternal embryonic leucine zipper kinase (MELK) inhibitor with IC $_{50}$ of 2 nM. MELK-8a also inhibits Flt3 (ITD), Haspin, PDGFR α with IC $_{50}$ s of 0.18, 0.19, and 0.42 μ M, respectively.



Cat. No.: HY-100368

Purity: >98%

Clinical Data: No Development Reported

Size: 1 mg, 5 mg

MELK-8a hydrochloride

(NVS-MELK8a hydrochloride) Cat. No.: HY-100368A

MELK-8a hydrochloride is a novel maternal embryonic leucine zipper kinase (MELK) inhibitor with an IC_{s0} of 2 nM.

Purity: 99.26%

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

MELK-IN-1

Cat. No.: HY-101515

MELK-IN-1 is a potent inhibitor of maternal embryonic leucine zipper kinase (MELK) with an $\rm IC_{so}$ and a K, of 3 nM and 0.39 nM, respectively.



Purity: >98%

Clinical Data: No Development Reported

Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

OTSSP167

(OTS167) Cat. No.: HY-15512

OTSSP167 (OTS167) is a highly potent and ATP-competitive MELK inhibitor with $\rm IC_{50}$ value of 0.41 nM.

Purity: >98% Clinical Data: Phase 2 Size: 1 mg, 5 mg

OTSSP167 hydrochloride

(OTS167 hydrochloride) Cat. No.: HY-15512A

OTSSP167 (OTS167) hydrochloride is a highly potent and ATP-competitive **MELK** inhibitor with ${\rm IC_{s0}}$ value of 0.41 nM.

Purity: 99.84% Clinical Data: Phase 2

Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg