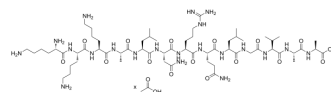


MK2-IN-5 acetate

Cat. No.:	HY-P10072A
Molecular Formula:	$C_{61}H_{113}N_{21}O_{16} \cdot xC_2H_4O_2$
Sequence:	Lys-Lys-Lys-Ala-Leu-Asn-Arg-Gln-Leu-Gly-Val-Ala-Ala
Sequence Shortening:	KKKALNRQLGVAA
Target:	JNK; HSP; MAPKAPK2 (MK2); p38 MAPK; ERK
Pathway:	MAPK/ERK Pathway; Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Stem Cell/Wnt
Storage:	Sealed storage, away from moisture and light, under nitrogen Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light, under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 80 mg/mL (Need ultrasonic)
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BIOLOGICAL ACTIVITY

Description	MK2-IN-5 (Hsp25 kinase inhibitor) acetate is a Mk2 pseudosubstrate ($K_i = 8 \mu\text{M}$). MK2-IN-5 acetate targets the protein interaction domain in the MAPK pathway. MK2-IN-5 acetate inhibits HSP25 and HSP27 phosphorylation ^{[1][2][3]} .								
In Vitro	MK2-IN-5 acetate (5-10 μM , 2 h) inhibits TGF- β 1 induced connective tissue growth factor (CTGF) and collagen type I in primary human keloid fibroblasts ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
In Vivo	MK2-IN-5 acetate (2 mg/kg Intraperitoneal injection, single dose) decreased HSP25 phosphorylation in ventilator-associated lung injury model ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="0"> <tr> <td>Animal Model:</td> <td>ventilator-associated lung injury model^[2]</td> </tr> <tr> <td>Dosage:</td> <td>2 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection (i.p.)</td> </tr> <tr> <td>Result:</td> <td>Decreased HSP25 phosphorylation.</td> </tr> </table>	Animal Model:	ventilator-associated lung injury model ^[2]	Dosage:	2 mg/kg	Administration:	Intraperitoneal injection (i.p.)	Result:	Decreased HSP25 phosphorylation.
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Result:	Decreased HSP25 phosphorylation.								

REFERENCES

[1]. Gaestel M, et al. Peptides as signaling inhibitors for mammalian MAP kinase cascades [J]. Current pharmaceutical design, 2009, 15(21): 2471-2480.

[2]. Damarla M, et al. Mitogen activated protein kinase activated protein kinase 2 regulates actin polymerization and vascular leak in ventilator associated lung injury [J]. PloS one, 2009, 4(2): e4600.

[3]. Lopes L B, et al. Inhibition of HSP27 phosphorylation by a cell-permeant MAPKAP Kinase 2 inhibitor [J]. Biochemical and biophysical research communications, 2009, 382(3): 535-539.

Caution: Product has not been fully validated for medical applications. For research use only.

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