

# Product data sheet



MedKoo Cat#: 562568 Name: FDI-6 CAS#: 313380-27-7 Chemical Formula: C <sub>19</sub> H <sub>11</sub> F <sub>4</sub> N <sub>3</sub> OS <sub>2</sub> Exact Mass: 437.028 Molecular Weight: 437.43	
Product supplied as: Powder	
Purity (by HPLC): ≥ 98%	
Shipping conditions: Ambient temperature	
Storage conditions: Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.	

## 1. Product description:

FDI-6 is an inhibitor of FOXM1 that block DNA binding. It act by specifically downregulating FOXM1-activated genes with FOXM1 occupancy confirmed by CHIP-PCR.

## 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

## 3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	64.34	147.09

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.29 mL	11.43 mL	22.86 mL
5 mM	0.46 mL	2.29 mL	4.57 mL
10 mM	0.23 mL	1.14 mL	2.29 mL
50 mM	0.05 mL	0.23 mL	0.46 mL

## 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

## 6. Recommended literature which reported protocols for in vitro and in vivo study

### In vitro study

1. Ulhaka K, Kanokwiroon K, Khongkow M, Bissanum R, Khunpitak T, Khongkow P. The Anticancer Effects of FDI-6, a FOXM1 Inhibitor, on Triple Negative Breast Cancer. *Int J Mol Sci.* 2021 Jun 22;22(13):6685. doi: 10.3390/ijms22136685. PMID: 34206484; PMCID: PMC8269391.
2. Liu Y, Zhu L, Wen T, Wan J, Lei Y, Chen H. [Forkhead domain inhibitor-6 (FDI-6) increases apoptosis and inhibits invasion and migration of laryngeal carcinoma cells by down-regulating nuclear FoxM1]. *Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi.* 2017 May;33(5):611-616. Chinese. PMID: 28502298.

### In vivo study

1. Lan C, Tan J, Tang L, Liu G, Huang L, Luo X, Zhou L, Zhu Y, Liu X, Fan N. Forkhead domain inhibitory-6 attenuates subconjunctival fibrosis in rabbit model with trabeculectomy. *Exp Eye Res.* 2021 Aug 7:108725. doi: 10.1016/j.exer.2021.108725. Epub ahead of print. PMID: 34375589.

## 7. Bioactivity

### Biological target:

FDI-6 is an inhibitor of FOXM1.

### In vitro activity

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This study then investigated the anti-proliferative effect of FDI-6 using a Sulforhodamine B (SRB) assay. The results demonstrated that FDI-6 inhibits cell proliferation in a dose-dependent manner.

Reference: Int J Mol Sci. 2021 Jun 22;22(13):6685. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8269391/>

## In vivo activity

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In vivo, FDI-6 (40  $\mu$ M) was injected subconjunctivally to a rabbit trabeculectomy model. The results showed that, in cell culture studies, FDI-6 suppressed the proliferation, migration, collagen gel contraction and the expression levels of fibronectin (FN) and  $\alpha$ -smooth muscle actin ( $\alpha$ -SMA) in RTFs with TGF- $\beta$  treatment by down-regulating the TGF- $\beta$ 1/Smad2/3 signaling pathway. In animal studies, the IOPs of the FDI-6-treated group were significantly lower than those of the saline-treated group after trabeculectomy. The FDI-6-treated eyes showed a better bleb appearance with fewer blood vessels compared to the saline-treated eyes.

Reference: Exp Eye Res. 2021 Aug 7:108725. <https://pubmed.ncbi.nlm.nih.gov/34375589/>

*Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.*