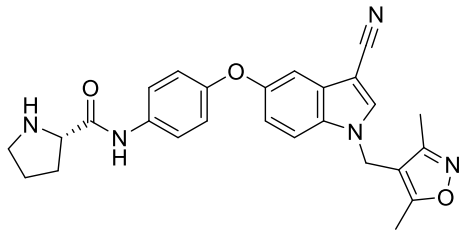


# Product data sheet



MedKoo Cat#: 526409 Name: AZ-PFKFB3-67 CAS#: 1704741-11-6 Chemical Formula: C <sub>26</sub> H <sub>25</sub> N <sub>5</sub> O <sub>3</sub> Exact Mass: 455.1957 Molecular Weight: 455.518	
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:

AZ-PFKFB3-67 is a novel potent and selective PFKFB3 inhibitor.

## 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	45.55	100.0
Ethanol	45.55	100.0

## 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.20 mL	10.98 mL	21.95 mL
5 mM	0.44 mL	2.20 mL	4.39 mL
10 mM	0.22 mL	1.10 mL	2.20 mL
50 mM	0.04 mL	0.22 mL	0.44 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. Emini Veseli B, Van Wielendaele P, Delibegovic M, Martinet W, De Meyer GRY. The PFKFB3 Inhibitor AZ67 Inhibits Angiogenesis Independently of Glycolysis Inhibition. *Int J Mol Sci.* 2021 May 31;22(11):5970. doi: 10.3390/ijms22115970. PMID: 34073144; PMCID: PMC8198190.

### In vivo study

1. Emini Veseli B, Van Wielendaele P, Delibegovic M, Martinet W, De Meyer GRY. The PFKFB3 Inhibitor AZ67 Inhibits Angiogenesis Independently of Glycolysis Inhibition. *Int J Mol Sci.* 2021 May 31;22(11):5970. doi: 10.3390/ijms22115970. PMID: 34073144; PMCID: PMC8198190.

## 7. Bioactivity

### Biological target:

AZ-PFKFB3-67 is a PFKFB3 kinase inhibitor, with IC<sub>50</sub>s of 11, 159 and 1130 nM for PFKFB3, PFKFB2 and PFKFB1 respectively.

### In vitro activity

As PFKFB3 protein expression was highest upon TNF- $\alpha$  and DMOG stimulation/treatment, these two conditions were explored further for this experiment. Interestingly, upon TNF- $\alpha$  stimulation and AZ67 treatment, a significant reduction in tube and mesh structure formation was observed (Figure 5A).

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Reference: Int J Mol Sci. 2021 Jun; 22(11): 5970. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8198190/>

## In vivo activity

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Finally, this study aimed to elucidate whether pharmacological inhibition of PFKFB3 by AZ67 would result in the expected in vivo effects for neovessel formation. Considered as the standard method for in vivo evaluation of pro- and anti-angiogenic compounds, the Matrigel plug assay revealed that AZ67 significantly inhibited new vessel formation in C57BL/6 mice. Fourteen days after implantation, the Matrigel plug containing the vehicle formed a large blood vessel network connected with the host vasculature, with the vessel containing blood, as seen in (Figure 6A) (red structures). In contrast, the Matrigel plug containing AZ67 displayed no functional vessels. This was further represented by microscopic images of CD31 positive vessel structures (in brown), accompanied by the quantification (Figure 6B).

Reference: Int J Mol Sci. 2021 Jun; 22(11): 5970. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8198190/>

*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.*