

Ac2-26

## Chemical Properties

CAS No. : 151988-33-9

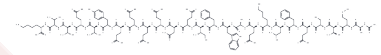
Formula: C141H210N32O44S

Molecular Weight: 3089.43

Keep away from moisture

Storage: Store at -20°C

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Ac2-26, an annexin A1 mimetic peptide, was able to attenuate renal inflammatory injury in a diabetic mouse model through inhibition of p38MAPK/NF-κB, as well as sepsis-induced cardiomyocyte apoptosis through the LXA4/PI3K/AKT signalling pathway, and hepatic ischaemia-reperfusion injury in mice by modulating IL-22/IL-22R1/STAT3 signalling pathway.
Targets(IC50)	Annexin A,NF-κB,Akt,STAT,IL Receptor,p38 MAPK,PI3K
In vitro	Ac2-26 (1 μM, 48 h) significantly reduced cardiomyocyte death under simulated ischemic conditions[1].
In vivo	In mice subjected to ischemia-reperfusion injury, Ac2-26 (1mg/kg, i.v., just before reperfusion) reduced myocardial necrosis, inflammation (48h), and cardiac fibrosis/apoptosis (7days). In myocardial infarction models, continuous subcutaneous delivery of Ac2-26 (1mg/kg/day, via osmotic pump for 1 week) delayed early cardiac dysfunction at 1 week, though no additional benefit was observed at 4 weeks.

## Solubility Information

Solubility	H2O: 20 mg/mL (6.47 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (0.65 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	0.3237 mL	1.6184 mL	3.2368 mL
5 mM	0.0647 mL	0.3237 mL	0.6474 mL
10 mM	0.0324 mL	0.1618 mL	0.3237 mL
50 mM	0.0065 mL	0.0324 mL	0.0647 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Qin CX, et al. Cardioprotective Actions of the Annexin-A1 N-Terminal Peptide, Ac2-26, Against Myocardial Infarction. *Front Pharmacol.* 2019 Apr 3;10:269.
- Liu P, Wang L, Wang Y, et al. ANXA1-FPR2 axis mitigates the susceptibility to atrial fibrillation in obesity via rescuing AMPK activity in response to lipid overload. *Cardiovascular Diabetology.* 2024, 23: 452.
- Liao WI, et al. Ac2-26, an Annexin A1 Peptide, Attenuates Ischemia-Reperfusion-Induced Acute Lung Injury. *Int J Mol Sci.* 2017 Aug 15;18(8). pii: E1771.

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