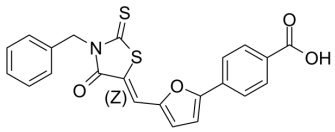
(Z)-Leukadherin-1

Cat. No.:	HY-15701A
CAS No.:	2055362-72-4
Molecular Formula:	$C_{22}H_{15}NO_4S_2$
Molecular Weight:	421.49
Target:	Complement System
Pathway:	Immunology/Inflammation
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 4.55 mg/mL (10.80 mM; ultrasonic and warming and heat to 60°C)
Methanol : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3725 mL	11.8627 mL	23.7254 mL
5 mM	0.4745 mL	2.3725 mL	4.7451 mL
10 mM	0.2373 mL	1.1863 mL	2.3725 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

(Z)-Leukadherin-1 (ADH-503 free base) is an orally active and allosteric CD11b agonist. (Z)-Leukadherin-1 leads to the repolarization of tumor-associated macrophages, reduction in the number of tumor-infiltrating immunosuppressive myeloid cells, and enhances dendritic cell responses[1].

IC_{50} & Target

CD11b[1]

In Vitro

(Z)-Leukadherin-1 (ADH-503 free base; 4 μM; 8 days) reduces the numbers of total tumor-infiltrating $CD11b^+$ cells and subsets of $CD11b^+$ monocytes, granulocytes, eosinophils, and macrophages[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

(Z)-Leukadherin-1 (ADH-503 free base; oral gavage; 30, 60, or 120 mg/kg; twice a day for 60 days) delayes tumor progression, leading to a significantly decreased tumor burden in time-point analysis and improved overall survival[1].
(Z)-Leukadherin-1 (oral gavage; 30, 100 mg/kg; twice a day; on days 1 and 5) has the mean half-life of 4.68 and 3.95 hours, a maximum concentration of 1716 and 2594 ng/ml and AUC0-t in the plasma of 6950 and 13962 ng.h/ml at 30 and 100 mg/kg

dosing, respectively[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	KPC mice [p48-CRE/Lox-stop-Lox(LSL)-Kras^{G12D}/p53$^{flox/flox}$][1]
Dosage:	30, 60, or 120 mg/kg
Administration:	Oral gavage; 60 days
Result:	Delayed tumor progression, leading to a significantly decreased tumor burden in time-point analysis and improved overall survival.

Animal Model:	Male rats[1]
Dosage:	30, 100 mg/kg (Pharmacokinetic Analysis)
Administration:	Oral gavage twice a day; on days 1 and 5
Result:	Had the mean half-life of 4.68 and 3.95 hours, a maximum concentration of 1716 and 2594 ng/ml and AUC0-t in the plasma of 6950 and 13962 ng.h/ml at 30 and 100 mg/kg dosing, respectively.

REFERENCES

[1]. Panni RZ, et al. Agonism of CD11b reprograms innate immunity to sensitize pancreatic cancer to immunotherapies. Sci Transl Med. 2019 Jul 3;11(499).

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

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