

Azurin (50-77) (P. aeruginosa) TFA

Chemical Properties

CAS No. :

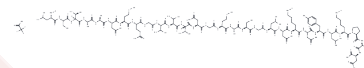
Formula: C122H197N31O47S2.XCF3COOH

Molecular Weight: 2914.18

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description

Azurin (50-77) is a peptide fragment derived from the copper-containing bacterial protein azurin, present in *P. aeruginosa*. It exhibits properties that regulate the cell cycle, inhibit cancer proliferation, and manage angiogenesis, proving its potential as an anticancer agent. Specifically, this compound acts as a VEGFR2 inhibitor with an IC₂₀ of approximately 10.7 μM. At a concentration of 20 μM, it effectively induces cell cycle arrest at the G₂/M phase in MCF-7 breast cancer cells, while a higher concentration of 50 μM significantly reduces the proliferation of both MCF-7 and ZR-75-1 breast cancer cell lines. Furthermore, Azurin (50-77) impedes VEGF-A-induced capillary tube formation with an IC₅₀ of 12 μM, and alters the cellular and extracellular levels of critical signaling and structural proteins such as F-actin, focal adhesion kinase (FAK), paxillin, and platelet endothelial cell adhesion molecule-1 (PECAM-1) in human umbilical vein endothelial cells (HUVECs) at a concentration of 25 μM. Demonstrating its efficacy in vivo, Azurin (50-77) administered at 10 mg/kg per day notably reduces tumor volume in an MCF-7 mouse xenograft model, highlighting its therapeutic potential.

Solubility Information

Solubility

DMSO: 30 mg/mL (10.29 mM), Sonication is recommended.
Ethanol: 5 mg/mL (1.72 mM), Sonication is recommended.
DMF: 5 mg/mL (1.72 mM), Sonication is recommended.
PBS pH 7.2: 10 mg/mL (3.43 mM), Sonication is recommended.
(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3431 mL	1.7157 mL	3.4315 mL
5 mM	0.0686 mL	0.3431 mL	0.6863 mL
10 mM	0.0343 mL	0.1716 mL	0.3431 mL
50 mM	0.0069 mL	0.0343 mL	0.0686 mL

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481