

## VEGFR-2/DHFR-IN-1

## Chemical Properties

CAS No. :

Formula: C<sub>20</sub>H<sub>18</sub>ClNO<sub>4</sub>

Molecular Weight: 371.81

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	VEGFR-2/DHFR-IN-1 (compound 8b) is a chemical inhibitor of VEGFR-2 and DHFR, with IC <sub>50</sub> values of 0.384 μM and 7.881 μM, respectively. It possesses effective antibacterial activity against pathogens including Escherichia coli, Streptococcus faecalis, Salmonella enterica, MSSA, and MRSA, with MIC values ranging from 8 to 16 μg/mL. Additionally, it exhibits potent cytotoxicity against cancer cell lines C26, HepG2, and MCF7, with IC <sub>50</sub> values between 2.97 and 7.12 μM, making it a valuable tool for cancer research [1].
Targets(IC <sub>50</sub> )	Others,Antibacterial,Antifungal,DHFR,VEGFR
In vitro	VEGFR-2/DHFR-IN-1, at concentrations ranging from 2-1024 μg/mL over 18-72 hours, demonstrates significant antimicrobial activity, as evidenced by minimum inhibitory concentration (MIC) values against a variety of pathogens: 16 μg/mL for Escherichia coli, 64 μg/mL for Pseudomonas aeruginosa, 16 μg/mL for Streptococcus faecalis, 16 μg/mL for Salmonella enterica, 8 μg/mL for MSSA, 16 μg/mL for MRSA, 64 μg/mL for Candida albicans, and 256 μg/mL for Aspergillus niger. Additionally, at 0.5-100 μM for 48 hours, it exhibits potent anticancer effects. Its inhibitory action on DHFR and VEGFR-2, identified through concentrations of 0-100 μM over 30 minutes, shows IC <sub>50</sub> s of 7.881 μM and 0.384 μM, respectively. Furthermore, cell cytotoxicity assays on C26, HepG2, MCF7, and H69PR cell lines, using concentrations between 0.5 and 100 μM over 48 hours, reveal VEGFR-2/DHFR-IN-1's anticancer capabilities, with IC <sub>50</sub> s of 2.97 μM for C26, 7.12 μM for HepG2, 3.58 μM for MCF7, and 12.79 μM for H69PR cells.

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.6895 mL	13.4477 mL	26.8955 mL
5 mM	0.5379 mL	2.6895 mL	5.3791 mL
10 mM	0.269 mL	1.3448 mL	2.6895 mL
50 mM	0.0538 mL	0.269 mL	0.5379 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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