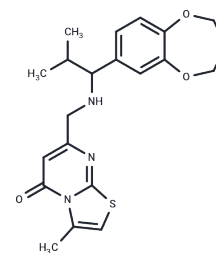


RUNX1/ETO-IN-1

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 923865-06-9 |
| Formula: | C ₂₁ H ₂₅ N ₃ O ₃ S |
| Molecular Weight: | 399.51 |
| 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 | RUNX1/ETO-IN-1 is an inhibitor targeting the oncogenic fusion protein RUNX1-ETO, specifically affecting the NHR2 oligomerization domain. It binds directly to NHR2 (KD, app = 39 μM). By inducing apoptosis and promoting differentiation, RUNX1/ETO-IN-1 exhibits antileukemic activity in RUNX1/ETO translocation acute myeloid leukemia (AML) cells. Its near-neutral charge under physiological pH conditions grants it excellent cell membrane permeability. |
| Targets(IC50) | Apoptosis,Others |
| In vitro | RUNX1/ETO-IN-1 (Compound M23) exhibits an IC50 value of 62.14 μM in the SKNO-1 acute myeloid leukemia cell line carrying the t(8;21) translocation, which results in RUNX1/ETO fusion gene expression. At concentrations ranging from 20-200 μM, RUNX1/ETO-IN-1 decreases the thermal stability of the NHR2 domain (ΔTm = -1.6°C) in a concentration-dependent manner, possibly by disrupting the tetramer-dimer equilibrium. At 50-100 μM for 24 hours, it induces cell cycle arrest and potential apoptosis in SKNO-1 cells but has no such effect on THP-1 cells. Additionally, it enhances apoptosis in SKNO-1 cells by increasing the activity of caspase-3 and caspase-7, without affecting THP-1 and healthy control NC-NC cells. RUNX1/ETO-IN-1 also promotes differentiation in SKNO-1 cells by elevating CD11b expression at 25-50 μM over three days, an effect not observed in K562 and THP-1 cells. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|------------|------------|-------------|
| 1 mM | 2.5031 mL | 12.5153 mL | 25.0307 mL |
| 5 mM | 0.5006 mL | 2.5031 mL | 5.0061 mL |
| 10 mM | 0.2503 mL | 1.2515 mL | 2.5031 mL |
| 50 mM | 0.0501 mL | 0.2503 mL | 0.5006 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

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