

Product Datasheet

Diaveridine (orb1224770)

Catalog Number	orb1224770
Category	Small Molecules
Description	Diaveridine (DVD) is a popular antibacterial synergist that is widely used in combination with sulfonamide. It has been reported to be genotoxic to mammalian cells, but more studies are required to clarify this. (In Vitro): Diaveridine is a dihydrofolate reductase (DHFR) inhibitor with a K_i of 11.5 nM for the wild type DHFR and also an antibacterial agent. Treatments with Diaveridine for 90 min have a strong bactericidal effect on <i>S. typhimurium</i> TA1535, and no bacterial growth is observed at 10 μg/mL or more. Without metabolic activation, treatment with Diaveridine for 48 h, but not 24 h, causes a dose-dependent, significant increase in the frequency of aberrant metaphases. At 100 μg/mL, 60% of the metaphases contain chromosome aberrations. (In Vivo): The sperm abnormality of the Diaveridine (DVD) treatment groups at all dose levels (Diaveridine, 128 to 512 mg/kg) shows no significant differences compare with the negative control group. There are no significant differences of micronucleus between the negative control group and the Diaveridine treatment groups (Diaveridine, 128 to 512 mg/kg). The chromosome aberration of the Diaveridine treatment groups at all dose levels and the negative control group are significantly lower than those in the positive control group treated with cyclophosphamide ($P < 0.05$), indicating that Diaveridine at the doses studied does not cause abnormal chromosome aberration. The results demonstrate that the Diaveridine administration does not produce significant changes in the ratio of organ-to-body weight, compare with the negative control group in the end period of the study.
Target	Others
Purity	>98% (HPLC)
MW	260.29
Solubility (25°C)	DMSO: > 10 mM

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CAS Number	5355-16-8
Formula	$C_{13}H_{16}N_4O_2$
SMILES	<chem>NC1=NC=C(CC2=CC=C(OC)C(OC)=C2)C(N)=N1</chem>
Chemical Name	5-(3,4-dimethoxybenzyl)pyrimidine-2,4-diamine
Storage	Storage temperature: -20°C. Stability: ≥ 2 years
Note	For research use only
Expiration Date	12 months from date of receipt.

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