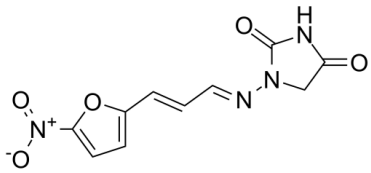
Data Sheet

Product Name:	Furagin
Cat. No.:	CS-0798
CAS No.:	1672-88-4
Molecular Formula:	C10H8N4O5
Molecular Weight:	264.19
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	DMSO : ≥ 33 mg/mL (124.91 mM)



BIOLOGICAL ACTIVITY:

Furagin, nitrofurantoin analog, is an anti-bacterial agent. Furagin is 2-substituted 5-nitrofuran, chemically and structurally similar to well-known antibacterial compound nitrofurantoin. IC50 Value: Target: Antibacterial in vitro: The furagin concentrations in serum remain several hours above the MIC concentrations of many pathogenic bacteria. Despite the high concentrations in serum, the urine levels of furagin were generally lower than those of nitrofurantoin. The 24 hr recoveries in urine were 8--13% for furagin and about 36% for nitrofurantoin [1]. in vivo: A time-independent increase in SCE frequency was found in lymphocytes of children treated with furagin. Total CA frequency did not differ significantly between groups of children with various duration of furagin treatment [2]. Women were randomised into two groups receiving either ciprofloxacin 250mg twice a day for 3 days (n=13) or furagin 100mg three times a day for 7 days (n=14). Median lengths of follow-up were 4 days and 5 days in the ciprofloxacin and furagin groups, respectively [3].

References:

[1]. Mannisto P, et al. Pharmacokinetics of furagin, a new nitrofurantoin congener, on human volunteers. Int J Clin Pharmacol Biopharm. 1979 Jun;17(6):264-70.

[2]. Slapsyte G, et al. Cytogenetic analysis of children under long-term antibacterial therapy with nitroheterocyclic compound furagin. Mutat Res. 2001 Apr 5;491(1-2):25-30.

[3]. Dybowski B, et al. Ciprofloxacin and furagin in acute cystitis: comparison of early immune and microbiological results. Int J Antimicrob Agents. 2008 Feb;31(2):130-4.

CAIndexNames:

2,4-Imidazolidinedione, 1-[[3-(5-nitro-2-furanyl)-2-propen-1-ylidene]amino]-

SMILES:

O=C1NC(CN1/N=C/C=C/C2=CC=C(O2)[N+]([O-])=O)=O

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

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