Product Data Sheet

Product Name: Acriflavine hydrochloride
Cat. No.: GC62354

Chemical Properties

Cas. No.	69235-50-3		
Formula	$C_{27}H_{27}Cl_3N_6$	M.Wt	541.9
Solubility	DMSO : 25 mg/mL (46.13 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Acriflavine hydrochloride		

Background

Acriflavine hydrochloride (Acriflavinium chloride hydrochloride) is a fluorescent acridine dye that can be used to label nucleic acid[1][2]. Acriflavine hydrochloride is an antiseptic. Acriflavine hydrochloride is a potent HIF-1 inhibitor, with antitumor activity. Acriflavine hydrochloride has antimicrobial and antiviral activities[3][4][5]. Acriflavine hydrochloride is a potent papain-like protease (PLpro) inhibitor, which inhibits SARS-CoV-2[6]

[1]. L M Chan, et al. Interaction of acriflavine with DNA and RNA. J Mol Biol. 1969 Mar 28;40(3):491-5.
[2]. Thomas Meinelt, et al. Effects of Calcium Content and Humic Substances on the Toxicity of Acriflavine to Juvenile Zebrafish Danio rerio. Journal of Aquatic Animal Health, 14:1, 35-38.
[3]. Tao Yin, et al. HIF-1 Dimerization Inhibitor Acriflavine Enhances Antitumor Activity of Sunitinib in Breast Cancer Model. Oncol Res. 2015; 22(3): 139-145.
[4]. RomÁn MartÍ-DÍaz, et al. Acriflavine, a Potent Inhibitor of HIF-1α, Disturbs Glucose Metabolism and Suppresses ATF4-Protective Pathways in Melanoma under Non-Hypoxic Conditions. Cancers (Basel). 2021 Jan; 13(1): 102.
[5]. Yoshihiro Shimoji, et al. A putative transcription regulator involved in the virulence

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

attenuation of an acriflavine-resistant vaccine strain of Erysipelothrix rhusiopathiae, the causative agent of swine erysipelas. Vet Microbiol. 2019 Dec;239:108488.
[6]. Valeria Napolitano, et al. Acriflavine, a clinically aproved drug, inhibits SARS-CoV-2 and other betacoronaviruses. bioRxiv 2021.03.20.436259.