Acriflavine Hydrochloride

Antiseptic and disinfectant

Acriflavine hydrochloride is a member of the acridine class, which includes antiseptics and disinfectants. It has been demonstrated that acriflavine exhibits strong cytotoxic effects on mammalian cells while also exhibiting high levels of DNA binding activity.

It binds to nucleus DNA and prevents transcription and replication. By attaching itself to mitochondrial DNA, during mitosis, acriflavine hydrochloride prevents cell division.

The substance also affects how cells use energy, causing mitochondria to produce more lactate and less ATP. Moreover, acriflavine hydrochloride inhibits the production of reactive oxygen species, which may result in cellular damage.

Acriflavine hydrochloride has been utilized in confocal laser endomicroscopy to examine the mucosa's crypt structure in living mice. By examining the acriflavine resistance, it has also been used in the selection of Neurospora strains.

The fluorescent dye acriflavine hydrochloride is used. It is applied topically as a contrast agent. Before microscopy, it is administered to tissues and mostly stains nuclei.

Cat. Number	AS-2037
CAS Number	8063-24-9
Additional CAS	69235-50-3
MDL Number	MFCD00069039
PubChem	310265807
Molecular Weight	541.90 g/mol
Molecular Formula	C27H27Cl3 N6
Storage Temperature	+20°C
Form and Color	Dark Red, Powder
Residue on Ignition	≤ 1.0%
Loss on Drying	≤ 6.5%
Assay	98.5 - 105.0 % (dried substance, % of C14H14N3Cl · HCl)
Synonym	3,6-Diamino-10-methylacridinium chloride hydrochloride, Euflavine