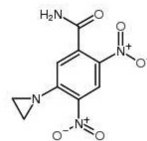


Product Name : Tretazicar
Synonyms : CB1954; CB-1954; CB 1954; Tretazicar
Cat No. : M18246
CAS Number : 21919-05-1
Molecular Formula : C₉H₈N₄O₅
Formula Weight : 252.18
Chemical Name : 5-(aziridin-1-yl)-2,4-dinitrobenzamide



Description : Tretazicar (CB1954) is a dinitrobenzamide prodrug that is converted in the presence of the enzyme NQO2 and co-substrate caricotamide (EP-0152R) (EP) into a potent cytotoxic bifunctional alkylating agent. CB1954 has been proposed for use in enzyme-prodrug gene therapy systems with the Escherichia coli enzyme nitroreductase (Ntr). Ntr converts CB1954 to 2- and 4-hydroxylamino derivatives, whereupon the non-enzymatic reaction of the 4-hydroxylamino derivative with cellular thioesters generates a potent cytotoxic bifunctional alkylating agent capable of cross-linking DNA.

Pathway : PI3K/Akt/mTOR signaling

Target : mTOR

Receptor : DNA alkylator

Solubility : —

SMILES : NC(=O)c1c(cc(c(c1)N1CC1)[N+](=O)[O-])[N+](=O)[O-]

Storage : (-20°C)

Stability : ≥ 2 years

Reference :

1. Gui R, et al. Inhibition of Grb2-mediated activation of MAPK signal transduction suppresses NOR1/CB1954-induced cytotoxicity in the HepG2 cell line. *Oncol Lett.* 2012 Sep;4(3):566-570.