Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Calicheamicin

Catalog No: tcsc5320

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Specifications

CAS No:
108212-75-5

Formula:
$C_{55}H_{74}IN_3O_{21}S_4$

Pathway:
Cell Cycle/DNA Damage;Antibody-drug Conjugate/ADC Related

Target:
DNA Alkylator/Crosslinker;ADC Cytotoxin

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
Calicheamicin γ1

Observed Molecular Weight:
1368.35

Product Description

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Calicheamicin is a potent DNA-damaging cytotoxic agent.

In Vitro: PF-06647263 (anti-EFNA4-ADC) is generated via conjugation of hE22 lysine residues to the AcButDMH-N-Ac-calicheamicin-γ1 linker-payload with an average drug-to-antibody ratio (DAR) of 4.6. PF-06647263 elicits antigen- and concentration-dependent cytotoxicity, as exposure to PF-06647263 for 96 hours results in cell death (EC_{50}= appr 1 ng/mL)[1]. CMC-544, consisting of a humanized CD22 Ab linked to calicheamicin, is effective in pediatric primary B-cell precursor acute lymphoblastic leukemia (BCP-ALL) cells in vitro. CMC-544 induces cell death in various ALL cell lines in a dose- and time-dependent way, with IC_{50} values ranging from 0.15 to 4.9 ng/mL. CMC-544 (10 ng/mL) is effective and specific in primary BCP-ALL cells[2]. In CMC-544-treated cells, the level of CD22 has decreased relative to that on G5/44-treated cells and continued to decrease[3].

In Vivo: An ADC comprising a humanized anti-EFNA4 monoclonal antibody conjugated to the DNA-damaging agent calicheamicin achieves sustained tumor regressions in both TNBC and ovarian cancer PDX in vivo. PF-06647263 (0.27, 0.36 mg/kg) results in significant tumor regressions in TNBC xenografts[1].