Data Sheet (Cat.No.T9901A-055)

TargetMol

Cofetuzumab pelidotin

Chemical Properties

CAS No. : 1869937-48-3

Formula:

Molecular Weight:

Storage: -20°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Cofetuzumab pelidotin (PF-06647020) is an antibody-drug conjugate (ADC) targeting PTK7, composed of the humanized anti-PTK7 monoclonal antibody (hu6M024, IgG1) linked to the auristatin-based microtubule inhibitor payload, auristatin-0101 (Aur0101), via a cleavable valine-citrulline (vc)-based linker. This compound exhibits a drug-to-antibody ratio (DAR) of 4 and selectively binds to cell-surface PTK7 with an EC50 of 1153 pM as determined by flow cytometry. Cofetuzumab pelidotin holds promise for the study of solid tumors [1] [2] [3].
Targets(IC50)	Microtubule Associated,Antibody-Drug Conjugates (ADCs)
In vitro	Cofetuzumab pelidotin (PF-06647020) exhibits cytotoxic effects in vitro against PTK7-expressing cancer cell lines H446, H661, and OVCAR3, with EC50 values of 7.6, 27.5, and 105 ng/mL, respectively[1]. Over a duration of six days, it shows high potency and PTK7-specific cytotoxicity in a range of cancer cell lines (A549, MDA-MB-468, KYSE-150, SKOV-3, PC9, NCI-H1975), with IC50 values ranging from 0 to 1100 nM[2]. However, its stability is relatively poor, with a T1/2 of less than 3 days[2].
In vivo	Cofetuzumab pelidotin (PF-06647020; 3 mg/kg; intraperitoneal injection twice weekly for four cycles) demonstrated significant in vivo antitumor activity in patient-derived xenograft (PDX) models of NSCLC, OVCA, and TNBC [1]. The study utilized NOD scid mice aged 6 to 10 weeks, harboring cells from these cancers [1]. The findings confirm that the specified dosage and administration route effectively suppress these tumor cells.

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