

Mipasetamab

Cat. No.:	HY-P99733
CAS No.:	2361055-48-1
Target:	TAM Receptor; ADC Antibody
Pathway:	Protein Tyrosine Kinase/RTK; Antibody-drug Conjugate/ADC Related
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Mipasetamab is an IgG1k antibody targeting to AXL, a tyrosine kinase receptor and an TAM Receptor. Mipasetamab involves in synthesis of ADCT-601 (Mipasetamab uzoptirine), an AXL-targeted antibody-drug conjugate (ADC). ADCT-601 has anti-tumor activity ^[1] .	
IC ₅₀ & Target	AXL ^[1]	
In Vitro	ADCT-601 (0.02-9.29 nM; 5 d) shows cytotoxicity on AXL-positive SN12C cells but ont AXL-negative Karpas-299 cells ^[1] . ADCT-601 (0.83 nM; 2-36 h) increases the level of DNA interstrand cross-links time-dependently in SN12C cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Cell Cytotoxicity Assay ^[1]	
	Cell Line:	AXL-positive SN12C cells: Panc-1, A-172, SK-LU-1, MDA-MB-231, SK-OV-3, NCI-H1299, and SN12C
	Concentration:	
	Incubation Time:	5 days
	Result:	Showed in vitro cytotoxicity with IC ₅₀ s of 0.47 nM (Panc-1), 0.59 nM (A-172), 0.02 nM (SK-LU-1), 0.35 nM (MDA-MB-231), 0.11 nM (SK-OV-3), 2.2 nM (NCI-H1299), and 0.83 nM (SN12C), respectively.
In Vivo	ADCT-601 (3 mg/kg, 6 mg/kg; i.v.; single dose) is safety and tolerability in non-tumor-bearing male Sprague-Dawley rats ^[1] . ADCT-601 (1 mg/kg; i.v.; once daily for 60 days) shows potent and sustained antitumor activity for mouse in both MDA-MB-231 TNBC xenograft model and SN12C renal cancer xenograft model ^[1] . ADCT-601 (0.075, 0.15, or 0.3 mg/kg; i.v.; once daily for 45 days) also dose-dependently in a pancreatic cancer PDX model (PAXF1657) with heterogeneous AXL expression ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Mouse model with SN12C renal cancer xenograft or MDA-MB-231 TNBC xenograft ^[1]
	Dosage:	0.3, 0.6, and 1 mg/kg

Administration:	Intravenous injection; once daily for 60 days
Result:	Significantly inhibited the growth of tumor volume in vivo in mouse.

REFERENCES

[1]. Zammarchi F, et al. Preclinical Development of ADCT-601, a Novel Pyrrolobenzodiazepine Dimer-based Antibody-drug Conjugate Targeting AXL-expressing Cancers. Mol Cancer Ther. 2022 Apr 1;21(4):582-593.

Caution: Product has not been fully validated for medical applications. For research use only.

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