Pacanalotamab

Cat. No.: HY-P99798

CAS No.: 2251756-52-0

Target: CD3

Pathway: Immunology/Inflammation

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Pacanalotamab (AMG 420; BI-836909) is a bispecific T-cell engager (BiTE) targeting to BCMA and CD3ε. BCMA refers to B cell maturation antigen, as Pacanalotamab redirecting T cells to BCMA expressing cells on the cell surface. Pacanalotamab conducts T-cell redirected lysis of human multiple myeloma (MM) cell lines[1].
IC_{50} & Target	B cell maturation antigen, BCMA; CD3ε[1]
In Vitro	Pacanalotamab (1 pg/mL-100 ng/mL; 24 h) induces BCMA-dependent tumor cell lysis via T cells activation. And Pacanalotamab induces dose-dependent redirected lysis of human multiple myeloma cell lines with EC_{90} values ranging from 16-810 pg/mL[1]. Pacanalotamab (100 ng/mL; 24 h) induces translocation of phosphatidylserine from the inner to the outer leaflet of the plasma membrane, leading to apoptosis in MM.1R cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Pacanalotamab (50 μg/kg/day; i.v. or s.c.; for 18 days) exhibits anti-tumor activity in mouse NCI-H929 xenograft model[1]. Pacanalotamab (5 μg/kg/day; i.v. or s.c.) significant prolongs survival of mouse in mouse orthotopic L-363 xenograft model[1]. Pacanalotamab (135 μg/kg/day for i.v. or 405 μg/kg/day for s.c.; up to 28 days) is well tolerated, and it decreases plasma cells in the bone marrow in macaque in toxicity studies[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Cynomolgus monkey studies[1]
Dosage:	(1) 0, 5, 15, 45 or 135 μg/kg/day, 20 mL/kg/day; (2) 135 or 405 μg/kg/day, 2 mL/kg/day
Administration:	Intravenous injection for (1) and subcutaneous injection for (2); for 7 days
Result:	Showed well tolerated among Cynomolgus monkeys. Clinical signs of toxicity were limited to vomiting and increased body temperature at 4-8 h.

REFERENCES

[1]. Hipp S, et al. A novel BCMA/CD3 bispecific T-cell engager for the treatment of multiple myeloma induces selective lysis in vitro and in vivo. Leukemia. 2017 Aug;31(8):1743-1751.

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