Xentuzumab

Cat. No.: HY-P99274

CAS No.: 1417158-65-6

Target: IGF-1R

Pathway: Protein Tyrosine Kinase/RTK

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

BIOLOGICAL ACTIVITY

Description

Xentuzumab (Anti-Human IGF1 and IGF2 Recombinant Antibody; BI836845) is a recombinant a human monoclonal antibody that targets IGF ligands IGF1 and IGF2. Xentuzumab inhibits both of IGF1 and IGF2 growth-promoting signalling and suppresses AKT activation[1].

IC_{50} & Target

IGF1, IGF2[1]

In Vitro

Xentuzumab (0.01-1 mM; 96 h) inhibits IGF type 1 receptor signaling and (0.1 μM; 48 h) AKT serine/threonine kinase (AKT) phosphorylation in VCaP, DuCaP, and MDA PCa 2b cell in a dose-dependent manner[1].

Xentuzumab (0.01-1 mM; 5-10 d) losses of antiproliferative activity against PTEN-null LNCaP or PC-3 cells when PTEN knockdown[1].

Xentuzumab (1 μM; 24-72 h) arrests cell cycle at sub-G1 phase and induces apoptosis in VCaP cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	Prostate cancer VCaP cells
Concentration:	0.1 μM
Incubation Time:	24 h and 48 h
Result:	Increased in cleaved caspase 3/7 and PARP. Decreased the level of phosphorylation of FoxO3a (S253)/FoxO1 (T24).

Cell Cycle Analysis[1]

Cell Line:	Prostate cancer VCaP cells
Concentration:	1 μM
Incubation Time:	24 h, 48 h, and 72 h
Result:	Increased in cleaved caspase 3/7 and induces cell apoptosis. Increased the sub-G1 cell population.

In Vivo

Xentuzumab (200 mg/kg i.p., once weekly for 10 weeks) in inhibits tumor growth in LuCaP 96CR patient-derived xenograft

model in mice[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Fox Chase CB17 severe combined immunodeficiency (SCID; CB17/lcr-Prkdc scid/lcrlcoCrl) male mice with LuCaP 96CR cell (s.c.)[1]
Dosage:	200 mg/kg
Administration:	Intraperitoneal injection; once weekly for 10 weeks; sacrificed 6 hours after the last dose
Result:	Resulted in significant reductions in tumor volume.

REFERENCES

[1]. Weyer-Czernilofsky U, et al. Antitumor Activity of the IGF-1/IGF-2-Neutralizing Antibody Xentuzumab (BI 836845) in Combination with Enzalutamide in Prostate Cancer Models. Mol Cancer Ther. 2020 Apr;19(4):1059-1069.

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