Enoblituzumab

Cat. No.:	HY-P9966
CAS No.:	1353485-38-7
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Enoblituzumab (MGA271) is a humanized IgG1κ monoclonal antibody recognizing human B7-H3 protein, a member of the B7 family of immune regulators[1].
In Vitro	Enoblituzumab interacts with B7-H3 and causes strong antibody-dependent cellular cytotoxicity (ADCC) against a wide spectrum of cancer cells[2]. Enoblituzumab (0.01 ng/mL-10 mg/mL) mediates antibody-dependent cellular cytotoxicity (ADCC) against A498 cells with cynomolgus monkey peripheral blood mononuclear cells (PBMCs)[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Enoblituzumab (5 mg/kg; i.v.; single dose) exhibits estimated half-life of 249 hours with a C_{max} of 43 mg/mL in mice (mCD16^{-}/$^{-}$hCD16A^{+}) that murine CD16 gene knocked out and are transgenic for human CD16A-158F[3]. Enoblituzumab (0.1-10 mg/kg; i.v.; once weekly; 5 weeks) exhibits potent antitumor activity in B7-H3-expressing xenograft mice models of renal cell and bladder carcinoma[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	mCD16^{-}/$^{-}$hCD16A^{+} mice implanted with A498 renal cell carcinoma, 786-0 renal cell carcinoma, or HT-1197 bladder carcinoma cells (s.c.)[3]
Dosage:	1 mg/kg, 5 mg/kg, 10 mg/kg
Administration:	Intravenous injection; once weekly; 5 weeks
Result:	Significantly inhibited tumor growth at doses of 1 mg/kg or greater with once weekly treatment. Achieved a cytostatic response at 5 or 10 mg/kg until day 52, after which the average tumor volume of the 5 mg/kg treatment group remained near predose administration levels, whereas a nonsignificant trend toward relapse exhibited in the 10 mg/kg group.

REFERENCES

[1]. Hińcza-Nowak K, et al. Immune Profiling of Medullary Thyroid Cancer-An Opportunity for Immunotherapy. Genes (Basel). 2021 Sep 28;12(10):1534.

[2]. Chapoval, et al. Immune Checkpoints of the B7 Family. Part 2. Representatives of the B7 Family B7-H3, B7-H4, B7-H5, B7-H6, B7-H7, and ILDR2 and Their Receptors. Russ J Bioorg Chem 45, 321–334 (2019).

[3]. Loo D, et al. Development of an Fc-enhanced anti-B7-H3 monoclonal antibody with potent antitumor activity. Clin Cancer Res. 2012 Jul 15;18(14):3834-45.

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