Bavituximab

Cat. No.:	HY-P99279
CAS No.:	648904-28-3
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Bavituximab (Anti-Human Phosphatidylserine Recombinant Antibody) is a phosphatidylserine (PS)-targeting monoclonal antibody, suppresses tumor growth by targeting tumor vasculature and reactivating antitumor immunity. Bavituximab plus Paclitaxel (HY-B0015) and Carboplatin (HY-17393), have enhanced inhibition on non-small-cell lung cancer[1].
IC_{50} & Target	Phosphatidylserine (PS)[1]
In Vitro	Bavituximab binds to exposed phosphatidylserine (PS) molecules via the serum protein, β2-glycoprotein 1 (β2GP1)[1]. Bavituximab binds PS to induces antibody-dependent cellular cytotoxicity, resulting in tumor vessel destruction[1]. Bavituximab (10 μg/mL; 48 h) binds to exposed phosphatidylserine (PS) via 10 μM Sorafenib inducing exposure in HUVEC and bEnd.3 cells[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Sorafenib induces exposure of anionic phospholipids in tumor model in mice. Bavituximab (100 μg/mouse; i.v.; single dose; 48 h after Sorafenib treatment) traces phosphatidylserine exposure in vivo[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Mice bearing subcutaneous PLC/PRF/5, C3A, and Huh7 tumors[2]
Dosage:	100 μg/mouse (Bavituximab/β2GP1)
Administration:	Intravenous injection single dose; 48 h after sorafenib treatment (100 mg/kg; p.o.; single dose)
Result:	Traced phosphatidylserine exposure in vivo in mice with tumors.

REFERENCES

[1]. Digumarti R, et al. Bavituximab plus paclitaxel and carboplatin for the treatment of advanced non-small-cell lung cancer. Lung Cancer. 2014 Nov;86(2):231-6.

[2]. Cheng X, et al. Antibody-Mediated Blockade of Phosphatidylserine Enhances the Antitumor Effect of Sorafenib in Hepatocellular Carcinomas Xenografts. Ann Surg Oncol. 2016 Dec;23(Suppl 5):583-591.

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

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