

Gancotamab

Cat. No.:	HY-P99630
CAS No.:	1509928-00-0
Target:	EGFR
Pathway:	JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Gancotamab (MM-302) is a HER2-targeted antibody-liposomal Doxorubicin conjugate with antitumor activity. Gancotamab encapsulates Doxorubicin to facilitate its delivery to HER2-overexpressing tumor cells ^[1] .																
IC₅₀ & Target	HER2																
In Vitro	<p>Gancotamab (MM-302; 0.5 μM; 72 hours) increases cell death in BT474-M3 and NCI-N87 cells^[1].</p> <p>Gancotamab (MM-302; 1 μM; 2-24 h) activates the p-p53 level and has no effect on p-Akt signal in BT474-M3 and NCI-N87 cells^[1].</p> <p>Gancotamab (MM-302) is a HER2-targeted liposome encapsulating approximately 20,000 molecules of Doxorubicin in its core and 45 single-chain anti-HER2 antibodies (scFv) conjugated to its surface^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>BT474-M3 and NCI-N87 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>72 hours</td> </tr> <tr> <td>Result:</td> <td>Significantly reduced in vitro viability.</td> </tr> </table> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>BT474-M3 and NCI-N87 cells</td> </tr> <tr> <td>Concentration:</td> <td>1 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>2 h, 8 h, and 24 h</td> </tr> <tr> <td>Result:</td> <td>Increased the p-p53 level and had no effect on p-Akt signal.</td> </tr> </table>	Cell Line:	BT474-M3 and NCI-N87 cells	Concentration:	0.5 μM	Incubation Time:	72 hours	Result:	Significantly reduced in vitro viability.	Cell Line:	BT474-M3 and NCI-N87 cells	Concentration:	1 μM	Incubation Time:	2 h, 8 h, and 24 h	Result:	Increased the p-p53 level and had no effect on p-Akt signal.
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In Vivo	<p>Gancotamab (MM-302; 3 mg/kg; i.v.; every 7 days; for 3 doses) shows tumor growth inhibition and increases the expression of the DNA damage marker p-p53^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>																

Animal Model:	Seven-week-old female NCR/nu mice injected with NCI-N87 cells ^[1]
Dosage:	3 mg/kg
Administration:	i.v.; every 7 days; for 3 doses
Result:	Showed significantly antitumor activity.

REFERENCES

[1]. Christopher W Espelin, et al. Dual HER2 Targeting with Trastuzumab and Liposomal-Encapsulated Doxorubicin (MM-302) Demonstrates Synergistic Antitumor Activity in Breast and Gastric Cancer. *Cancer Res.* 2016 Mar 15;76(6):1517-27.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA