

Ganitumab

Cat. No.:	HY-P99294
CAS No.:	905703-97-1
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	<p>Ganitumab (AMG 479) is a recombinant human monoclonal antibody to the human type 1 insulin-like growth factor receptor (IGF1R). Ganitumab recognizes murine IGF1R with sub-nanomolar affinity ($K_D=0.22$ nM) and inhibits the interaction of murine IGF1R with IGF1 and IGF2. Ganitumab can be used in research of cancer^[1].</p>									
In Vitro	<p>Ganitumab (AMG 479; 0.032-500 nM; 10 min; CT26 cells) binds mIGF1R and inhibits IGF1- and IGF2-mediated activation of mIGF1R^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Cell Line:</td> <td>CT26 cells</td> </tr> <tr> <td>Concentration:</td> <td>0.032-500 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>10 minutes</td> </tr> <tr> <td>Result:</td> <td>Inhibited IGF1-induced autophosphorylation of mIGF1R in CT26 murine colon carcinoma cells in a dose-dependent manner.</td> </tr> </table>		Cell Line:	CT26 cells	Concentration:	0.032-500 nM	Incubation Time:	10 minutes	Result:	Inhibited IGF1-induced autophosphorylation of mIGF1R in CT26 murine colon carcinoma cells in a dose-dependent manner.
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In Vivo	<p>Ganitumab (AMG 479; 1 mg/dose; i.p; Naïve and tumor-bearing mice) inhibits IGF1-induced activation of mIGF1R in murine lungs^[1].</p> <p>Ganitumab (300 µg/dose; i.p.; female athymic nude mice) reduces peripheral blood neutrophils^[1].</p> <p>Ganitumab (300 µg/dose; i.p.; male athymic nude mice) causes impaired glucose tolerance in male mice and increases serum levels of mGH, mIGF1 and mIGFBP3^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>Naïve and tumor-bearing mice^[1]</td> </tr> <tr> <td>Dosage:</td> <td>1 mg/dose</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection</td> </tr> <tr> <td>Result:</td> <td>Inhibited the IGF1-induced activation of mIGF1R and inhibited 80% tumor growth.</td> </tr> </table>		Animal Model:	Naïve and tumor-bearing mice ^[1]	Dosage:	1 mg/dose	Administration:	Intraperitoneal injection	Result:	Inhibited the IGF1-induced activation of mIGF1R and inhibited 80% tumor growth.
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Animal Model:	Male athymic nude mice ^[1]
Dosage:	300 µg/dose
Administration:	Intraperitoneal injection, twice per week for a total of five doses
Result:	Had significantly higher serum glucose levels than hIlgG1-pretreated mice. Increased serum levels of mIGF1, mIGFPB3 and mGH.
Animal Model:	Female athymic nude mice ^[1]
Dosage:	300 µg/dose
Administration:	Intraperitoneal injection, twice per week for a total of five doses
Result:	Reduced the number of peripheral neutrophils up to 50% compared with hIlgG1 controls.

REFERENCES

[1]. Moody G, et, al. IGF1R blockade with ganitumab results in systemic effects on the GH-IGF axis in mice. J Endocrinol. 2014 Mar 17;221(1):145-55.

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

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