

Rilotumumab

Cat. No.:	HY-P99217
CAS No.:	872514-65-3
Target:	c-Met/HGFR
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Rilotumumab (AMG 102) is an anti-HGF (anti-hepatocyte growth factor) monoclonal antibody, inhibits HGF/MET-driven signaling. Rilotumumab shows anti-tumor activity, and can be used in castration-resistant prostate cancer (CRPC) and solid tumor research ^{[1][2]} .									
In Vitro	<p>Rilotumumab (10 µg/mL; overnight) shows the decrease of MET phosphorylation at Y1234 and Y1235, and an increase in total MET^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[2]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>U87MG.vIII cells</td> </tr> <tr> <td>Concentration:</td> <td>10 µg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>Overnight</td> </tr> <tr> <td>Result:</td> <td> Showed MET phosphorylation at tyrosine residue 1234 (Y1234) and Y1235 ~50% lower in U87MG.vIII cells than in untreated cells. Showed an increase in total MET compared with untreated cells. </td> </tr> </table>		Cell Line:	U87MG.vIII cells	Concentration:	10 µg/mL	Incubation Time:	Overnight	Result:	Showed MET phosphorylation at tyrosine residue 1234 (Y1234) and Y1235 ~50% lower in U87MG.vIII cells than in untreated cells. Showed an increase in total MET compared with untreated cells.
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In Vivo	<p>Rilotumumab (intraperitoneal injection; 1.5 mg/kg; once two days; 11 d) treatment inhibits glioma cell growth in vivo^[2].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>6-8-week-old BALB/c nu/nu female mice subcutaneous injected with U87MG.vIII cells^[2]</td> </tr> <tr> <td>Dosage:</td> <td>1.5 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection; 1.5 mg/kg; once two days; 11 days</td> </tr> <tr> <td>Result:</td> <td>Reduced U87MG.vIII xenograft growth (P=0.0002) compared with vehicle-treated xenografts (P=0.0001).</td> </tr> </table>		Animal Model:	6-8-week-old BALB/c nu/nu female mice subcutaneous injected with U87MG.vIII cells ^[2]	Dosage:	1.5 mg/kg	Administration:	Intraperitoneal injection; 1.5 mg/kg; once two days; 11 days	Result:	Reduced U87MG.vIII xenograft growth (P=0.0002) compared with vehicle-treated xenografts (P=0.0001).
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REFERENCES

[1]. Ryan CJ, et al. Targeted MET inhibition in castration-resistant prostate cancer: a randomized phase II study and biomarker analysis with rilotumumab plus mitoxantrone and prednisone. Clin Cancer Res. 2013 Jan 1;19(1):215-24.

[2]. Greenall SA, et al. EGFRvIII-mediated transactivation of receptor tyrosine kinases in glioma: mechanism and therapeutic implications. Oncogene. 2015 Oct 8;34(41):5277-87.

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