

## Mapatumumab

<b>Cat. No.:</b>	HY-P99265
<b>CAS No.:</b>	658052-09-6
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	Mapatumumab (HGS-ETR1) is a fully human IgG1 agonistic monoclonal antibody that targets tumor necrosis factor-related apoptosis-inducing ligand receptor 1 (TRAIL-R1). Mapatumumab can be used for the research of cancer <sup>[1]</sup> .									
<b>In Vitro</b>	<p>Mapatumumab (0.01-100 µg/mL; 4 h) shows no growth inhibition to Pediatric Preclinical Testing Program (PPTP) cell lines<sup>[1]</sup>. Mapatumumab (1-100 ng/mL; 24 h) shows significant potentiation of cytotoxicity and synergy when combined with (epirubicin) EPI for bladder cancer cells<sup>[2]</sup>.</p> <p>Mapatumumab (100 ng/mL; 12 h) induces significant cell apoptosis of T24, 253J and J82 cells with the combination of EPI (1 µg/mL)<sup>[2]</sup>.</p> <p>Mapatumumab (100 ng/mL; 6-24 h) significantly activates caspase-8, -9 and -3 with the combination of EPI (1 µg/mL)<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>									
<b>In Vivo</b>	<p>Mapatumumab (10 mg/kg; i.p. for three times) controls tumor growth when combined with irradiation<sup>[3]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%;"> <tr> <td>Animal Model:</td> <td>Colo205-xenograft-bearing NMRI (nu/nu) nude mice<sup>[3]</sup></td> </tr> <tr> <td>Dosage:</td> <td>10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection; 10 mg/kg; on days 1, 4, and 8</td> </tr> <tr> <td>Result:</td> <td>Showed no significant differences when used alone, but when combined with irradiation (5×3 Gy, d1-5) showed a pronounced tumor regrowth-delay.</td> </tr> </table>		Animal Model:	Colo205-xenograft-bearing NMRI (nu/nu) nude mice <sup>[3]</sup>	Dosage:	10 mg/kg	Administration:	Intraperitoneal injection; 10 mg/kg; on days 1, 4, and 8	Result:	Showed no significant differences when used alone, but when combined with irradiation (5×3 Gy, d1-5) showed a pronounced tumor regrowth-delay.
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### REFERENCES

- [1]. Smith MA, et al. Initial testing (stage 1) of mapatumumab (HGS-ETR1) by the pediatric preclinical testing program. *Pediatr Blood Cancer*. 2010 Feb;54(2):307-10.
- [2]. Ahmed SM, et al. Synergistic induction of apoptosis by mapatumumab and anthracyclines in human bladder cancer cells. *Oncol Rep*. 2015 Feb;33(2):566-72.
- [3]. Marini P, et al. Combination of the pro-apoptotic TRAIL-receptor antibody mapatumumab with ionizing radiation strongly increases long-term tumor control under ambient and hypoxic conditions. *Int J Radiat Oncol Biol Phys*. 2009 Sep 1;75(1):198-202.

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**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](mailto:tech@MedChemExpress.com)

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