

## Adecatumumab

Cat. No.:	HY-P99278
CAS No.:	503605-66-1
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	Adecatumumab (Anti-Human EPCAM Recombinant Antibody; MT201) is a full human monoclonal antibody of the IgG1 isotype, targeting human EpCAM. Adecatumumab is expressed in almost all adenocarcinomas, and its activity is not dependent of K-Ras status <sup>[1][2]</sup> .									
<b>IC<sub>50</sub> &amp; Target</b>	Human EPCAM <sup>[1]</sup>									
<b>In Vitro</b>	<p>Adecatumumab (4 μM; 18 h) shows diverse kinetic binding activities among human Adecatumumab and murine Adecatumumab in B16/EpCAM 3E3 cells<sup>[2]</sup>.</p> <p>Adecatumumab (0.1 ng/mL-0.1 mg/mL; 4 h) shows a dose-dependent Antibodies depend on cell-mediated cytotoxicity (ADCC) activity in natural killing (NK) cells<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>									
<b>In Vivo</b>	<p>Adecatumumab (300 μg/mouse; i.v. bolus injection; 3 times per week) inhibits tumor growth in B16/EpCAM xenograft tumor model in mice, both of human adecatumumab and mu-adecatumumab<sup>[2]</sup>.</p> <p>Both human adecatumumab and mu-adecatumumab (300 μg/mouse; i.v. bolus injection; single dose) exhibit a bi-exponential curve progression of serum concentration with an early distribution phase between 0 and 10 h and a terminal elimination phase<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" data-bbox="341 1470 1510 1953"> <tr> <td>Animal Model:</td> <td>Female immunocompetent C57BL/6 mice (6-10 weeks old) with B16/EpCAM (i.v.)<sup>[2]</sup></td> </tr> <tr> <td>Dosage:</td> <td>250 μg/mouse and 600 μg/mouse for human Adecatumumab; 125 μg/mouse and 300 μg/mouse for murine Adecatumumab</td> </tr> <tr> <td>Administration:</td> <td>250 μg/mouse and 600 μg/mouse for human Adecatumumab; 125 μg/mouse and 300 μg/mouse for murine Adecatumumab</td> </tr> <tr> <td>Result:</td> <td>Both of them exhibited anti-tumor activity against B16/EpCAM cells in mice. Although human adecatumumab inhibited the size of tumor colonies mice, the number of colonies was only slightly reduced after treatment without significant difference. In contrast, mu-adecatumumab induced a highly significant reduction in the number of lung tumor colonies by &gt;85%, and the few remaining tumor colonies were of very small size.</td> </tr> </table>		Animal Model:	Female immunocompetent C57BL/6 mice (6-10 weeks old) with B16/EpCAM (i.v.) <sup>[2]</sup>	Dosage:	250 μg/mouse and 600 μg/mouse for human Adecatumumab; 125 μg/mouse and 300 μg/mouse for murine Adecatumumab	Administration:	250 μg/mouse and 600 μg/mouse for human Adecatumumab; 125 μg/mouse and 300 μg/mouse for murine Adecatumumab	Result:	Both of them exhibited anti-tumor activity against B16/EpCAM cells in mice. Although human adecatumumab inhibited the size of tumor colonies mice, the number of colonies was only slightly reduced after treatment without significant difference. In contrast, mu-adecatumumab induced a highly significant reduction in the number of lung tumor colonies by >85%, and the few remaining tumor colonies were of very small size.
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## REFERENCES

- [1]. Kurtz JE, et al. Adecatumumab: an anti-EpCAM monoclonal antibody, from the bench to the bedside. *Expert Opin Biol Ther.* 2010 Jun;10(6):951-8.
- [2]. Lutterbuese P, et al. Exchanging human Fcgamma1 with murine Fcgamma2a highly potentiates anti-tumor activity of anti-EpCAM antibody adecatumumab in a syngeneic mouse lung metastasis model. *Cancer Immunol Immunother.* 2007 Apr;56(4):459-68.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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