

Panitumumab (anti-EGFR)

Cat. No.:	HY-P99041A
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	Panitumumab (anti-EGFR) is a fully human IgG2 anti-EGFR monoclonal antibody with anti-tumor activity. Panitumumab (anti-EGFR) inhibits tumor cell proliferation, survival and angiogenesis. Panitumumab (anti-EGFR) can be used in the research of cancers, such as colon cancer ^{[1][2][4]} .									
In Vitro	<p>Panitumumab (2 nM-2 μM, 3 h) (anti-EGFR) inhibits ligand-dependent autophosphorylation in EGFR-expressing NCI-H1975 cells, NCI-H1650 cells and CHO cells^[3].</p> <p>Panitumumab (0-200 μg/mL, 48 h) (anti-EGFR) inhibits the proliferation of DLD-1 cells^[4].</p> <p>Panitumumab (80 μg/mL, 24 h) (anti-EGFR) increase beclin-1 (a marker of autophagy) levels in Caco-2 cells and DLD-1 cells^[4].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[3]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>EGFR-expressing NCI-H1975 cells, NCI-H1650 cells and CHO cells</td> </tr> <tr> <td>Concentration:</td> <td>2, 20, 200, 2000 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>3 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited ligand-induced autophosphorylation of EGFR.</td> </tr> </table>		Cell Line:	EGFR-expressing NCI-H1975 cells, NCI-H1650 cells and CHO cells	Concentration:	2, 20, 200, 2000 nM	Incubation Time:	3 h	Result:	Inhibited ligand-induced autophosphorylation of EGFR.
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In Vivo	<p>Panitumumab (25, 100, or 500 μg/mouse, i.p., twice a week) (anti-EGFR) inhibits tumor growth in NCI-H1975 and NCI-H1650 xenografts, compared with control (P < 0.0003)^[1].</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>NCI-H1975 and NCI-H1650 xenografts^[3]</td> </tr> <tr> <td>Dosage:</td> <td>25, 100, or 500 μg/mouse</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection (i.p.), twice a week</td> </tr> <tr> <td>Result:</td> <td>Inhibited ligand-induced EGFR phosphorylation, tumor growth, and markers of proliferation. Decreased Ki-67 and phospho- mitogen-activated protein kinase (pMAPK) staining in both</td> </tr> </table>		Animal Model:	NCI-H1975 and NCI-H1650 xenografts ^[3]	Dosage:	25, 100, or 500 μg/mouse	Administration:	Intraperitoneal injection (i.p.), twice a week	Result:	Inhibited ligand-induced EGFR phosphorylation, tumor growth, and markers of proliferation. Decreased Ki-67 and phospho- mitogen-activated protein kinase (pMAPK) staining in both
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REFERENCES

- [1]. Yu Jo Chua, et al. Panitumumab. *Drugs Today (Barc)*. 2006 Nov;42(11):711-9.
- [2]. Stefan Stremitzer, et al. Panitumumab safety for treating colorectal cancer. *Expert Opin Drug Saf*. 2014 Jun;13(6):843-51.
- [3]. Daniel J. Freeman, et al. Activity of panitumumab alone or with chemotherapy in non-small cell lung carcinoma cell lines expressing mutant epidermal growth factor receptor. *Mol Cancer Ther* (2009) 8 (6): 1536–1546.
- [4]. Efstathia Giannopoulou, et al. Autophagy: novel action of panitumumab in colon cancer. *Anticancer Res*. 2009 Dec;29(12):5077-82.
- [5]. Giannopoulou E, et al. Autophagy: novel action of panitumumab in colon cancer. *Anticancer Res*. 2009 Dec;29(12):5077-82. PMID: 20044619. . . .
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