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

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].

?Panitumumab (0-200 μg/mL, 48 h) (anti-EGFR) inhibits the proliferation of DLD-1 cells[4].

?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].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[3]

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.

In Vivo

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].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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

	xenografts.

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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