

Cetuximab

Chemical Properties

CAS No. : 205923-56-4

Formula:

Molecular Weight: 145.54 kDa

Storage: Store at low temperature
-20°C for 1 year

Actual storage temperature shall be subject to the COA.

Cetuximab

Biological Description

Description	Cetuximab (C225) is a monoclonal antibody that is an inhibitor of human epidermal growth factor receptor (EGFR) (Kd=0.201 nM). Cetuximab has antitumor activity, inhibiting tumor cell proliferation and inducing apoptosis.
Targets(IC50)	EGFR
In vitro	<p>METHODS: Human squamous cell carcinoma (SCC) cells SCC-13Y, SCC-38, SCC-1, and SCC-11B were treated with Cetuximab (30 nM) for 8 days, and cell numbers were measured using a hemacytometer.</p> <p>RESULTS: Cetuximab inhibited cell proliferation of SCC cells in a time-dependent manner. Cetuximab inhibited the growth of SCC cell lines in a time-dependent manner, ranging from 20%-75% compared to untreated controls. [1]</p> <p>METHODS: EGFR mutant cells PC-9 and EGFR wild-type cells PC-14, A549 were treated with Cetuximab (10-100 µg/mL) for 24 h, and the expression levels of target proteins were detected by Western Blot.</p> <p>RESULTS: EGFR phosphorylation was strongly expressed in PC-9 and continued to be strongly expressed during Cetuximab treatment. In PC-14 and A549 cells, although the increase in EGFR phosphorylation was reduced by the addition of Cetuximab, phosphorylation was not completely inhibited at the highest concentration. [2]</p>
In vivo	<p>METHODS: To assay antitumor activity in vivo, Cetuximab (1 mg/injection) was administered intraperitoneally to BALB/c (nu/nu) mice harboring HNSCC tumors UT-SCC-2 or UT-SCC-14 on the 10th, 13th, and 16th days after tumor cell injection.</p> <p>RESULTS: Cetuximab treatment reduced tumor growth in HNSCC xenografts and increased local oxygen partial pressure in tumors. [3]</p> <p>METHODS: To study in vivo antitumor activity, Cetuximab (0.25-1 mg/mouse) was administered intraperitoneally to nude mice bearing xenograft tumors every three days for a minimum of five injections.</p> <p>RESULTS: Treatment with Cetuximab alone effectively delayed the growth of GEO and L2987 tumors for at least 10 days. Borderline activity was observed in A549 and WiDr xenografts. However, Cetuximab did not show any significant anti-tumor activity in HT29, HCT116, LOVO, Colo205, LX-1, HCC70 and N87 models. [4]</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.0069 mL	0.0344 mL	0.0687 mL
5 mM	0.0014 mL	0.0069 mL	0.0137 mL
10 mM	0.0007 mL	0.0034 mL	0.0069 mL
50 mM	0.0001 mL	0.0007 mL	0.0014 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481