
Product Data Sheet

Product Name: Nimotuzumab

Cat. No.: GC62601

Chemical Properties

Cas. No. 780758-10-3

Formula M.Wt

Solubility Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

Nimotuzumab is a humanized IgG1 monoclonal antibody targeting EGFR with a KD of 0.21 nM. Nimotuzumab is directed against the extracellular domain of the EGFR blocking the binding to its ligands. Nimotuzumab, a strong antitumor drug, is cytolytic on target tumors by its capacity to cause antibody dependent cell mediated cytotoxicity (ADCC) and complement dependent cytotoxicity (CDC)[1][2].

Nimotuzumab (10 µg/mL; 24 hours) induces significant downregulation of CD16 on NK cells[1]. Nimotuzumab (10 µg/mL; 48 hours) induces the upregulation of PD-L1 molecule on DCs when co-cultured with the NK: DC: HNSCC cells[1]. The intrinsic properties of Nimotuzumab requires bivalent binding (i.e., binding with both antibody arms to two targets simultaneously) for stable attachment to cellular surface, which leads to Nimotuzumab selectively binding to cells that express moderate to high EGFR levels[2].

[1]. Zaima Mazorra, et al. Nimotuzumab Induces NK Cell Activation, Cytotoxicity, Dendritic Cell Maturation and Expansion of EGFR-Specific T Cells in Head and Neck Cancer Patients. *Front Pharmacol.* 2017 Jun 19;8:382.

[2]. Melarkode S Ramakrishnan, et al. Nimotuzumab, a promising therapeutic monoclonal for treatment of tumors of epithelial origin. *MAbs.* Jan-Feb 2009;1(1):41-8.

Caution: Product has not been fully validated for medical applications. For research use only.

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