Product Data Sheet

Product Name: Obinutuzumab (GA101)
Cat. No.: GC34212

Chemical Properties

Cas. No.			
SMILES	[Obinutuzumab]		
Formula		M.Wt	146298.97
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Obinutuzumab (GA101)		

Protocol

Animal experiment:

Mice: For xenograft experiments, 1×106 RL cells are injected subcutaneously on day 1. Mice are randomized when a tumor becomes palpable in groups of 10 and treatment is initiated. In a first set of experiments, rituximab and obinutuzumab are used as monotherapy at different dosages twice weekly. The 5 different groups of 10 mice are: control group receiving vehicle (NaCl 0.9%), rituximab (30 mg/kg), obinutuzumab (10 mg/kg), obinutuzumab (30 mg/kg), and obinutuzumab (100 mg/kg). The treatment is administered intravenously twice a week. The mice are closely monitored regarding weight and general status[2].

References:

[1]. Herter S, et al.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Preclinical activity of the type II CD20 antibody GA101 (obinutuzumab) compared with rituximab and ofatumumab in vitro and in xenograft models. Mol Cancer Ther. 2013 Oct;12(10):2031-42.
[2]. Dalle S, et al. Preclinical studies on the mechanism of action and the anti-lymphoma activity of the novel anti-CD20 antibody -GA101. Mol Cancer Ther. 2011 Jan;10(1):178-85.
[3]. Herting F, et al. Enhanced anti-tumor activity of the glycoengineered type II CD20 antibody obinutuzumab(GA101) in combination with chemotherapy in xenograft models of human lymphoma. Leuk Lymphoma. 2014 Sep;55(9):2151-5160.

Background

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Obinutuzumab (GA101) a novel glycoengineered Type II CD20 monoclonal antibody in development for non-Hodgkin lymphoma.

Obinutuzumab is found to be superior to rituximab and ofatumumab in the induction of direct cell death (independent of mechanical manipulation required for cell aggregate disruption formed by antibody treatment), whereas it is 10 to 1,000 times less potent in mediating CDC. Obinutuzumab shows superior activity to rituximab and ofatumumab in ADCC and whole-blood B-cell depletion assays, and is comparable with these two in ADCP. Obinutuzumab also shows slower internalization rate upon binding to CD20 than rituximab and ofatumumab[1]

Obinutuzumab is more active than rituximab administered at similar doses on established RL tumors. The antitumor effect of obinutuzumab against RL xenografts is dose dependent in terms of tumor growth inhibition (TGI). TGI is calculated using NCI formula at day 34 and shows values of 25, 75, and 85% for the 10, 30, and 100 mg/kg dosages of obinutuzumab, respectively. The higher doses of 30 and 100 mg/kg of obinutuzumab significantly inhibit the growth of RL tumors and result in some complete tumor remissions (10% and 30%, respectively). Tolerability of obinutuzumab with these regimens is excellent and no significant modification of body weight is observed[2]. Obinutuzumab induces a strong antitumor effect, including complete tumor remission in the SU-DHL4 model and overall superior efficacy compared with both rituximab and ofatumumab[1]. Obinutuzumab plus bendamustine achieves superior tumor growth inhibition versus rituximab plus bendamustine and shows a statistically significant effect versus the respective single treatments. Obinutuzumab plus chemotherapy is superior to the respective monotherapies[3].

[1]. Herter S, et al. Preclinical activity of the type II CD20 antibody GA101 (obinutuzumab) compared with rituximab and ofatumumab in vitro and in xenograft models. Mol Cancer Ther. 2013 Oct;12(10):2031-42. [2]. Dalle S, et al. Preclinical studies on the mechanism of action and the anti-lymphoma activity of the novel anti-CD20 antibody -GA101. Mol Cancer Ther. 2011 Jan;10(1):178-85. [3]. Herting F, et al. Enhanced anti-tumor activity of the glycoengineered type II CD20 antibody obinutuzumab(GA101) in combination with chemotherapy in xenograft models of human lymphoma. Leuk Lymphoma. 2014 Sep;55(9):2151-5160.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA