**Proteins** 

## **Siltuximab**

Cat. No.: HY-P9956 CAS No.: 541502-14-1

Target: Interleukin Related

Pathway: Immunology/Inflammation

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.

## **BIOLOGICAL ACTIVITY**

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Siltuximab is an anti-IL-6 (interleukin-6) monoclonal antibody, and shows antitumor activity. Siltuximab can be used in Multicentric Castleman's Disease (MCD) and COVID-19 research<sup>[1][2][3]</sup>.

## In Vivo

Siltuximab (intraperitoneal injection; 10 mg/kg; 3 times per week) inhibits the growth of lung cancer cells in xenograft  $mouse model^{[1]}$ .

Siltuximab (intraperitoneal injection; 20 mg/kg; twice per week; 6 w) inhibits the growth of MCF-7 tumor in xenograft model

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

Animal Model:	Female CD-1 nu/nu mice injected with H1650 (adenocarcinoma), H322 (adenocarcinoma), or H157 (squamous) cells $^{[1]}$			
Dosage:	10 mg/kg			
Administration:	Intraperitoneal injection; 10 mg/kg; 3 times per week			
Result:	Repressed PY-STAT3 levels stimulated by IL-6 in H322 cells. Repressed PY-STAT3 levels in H1650 cells. Inhibited the growth of tumors with H322 and CAF cells. Inhibited the growth of tumors with H1650 and CAF cells.			
	[6]			

Animal Model:	Female NOD-SCID mice with MCF-7 tumor <sup>[4]</sup>
Dosage:	20 mg/kg
Administration:	Intraperitoneal injection; 20 mg/kg; twice per week; 6 weeks
Result:	Blocked MCF-7 engraftment, induced regressions in 90% of tumors.

## **REFERENCES**

[1]. Karkera J, et al. The anti-interleukin-6 antibody siltuximab down-regulates genes implicated in tumorigenesis in prostate cancer patients from a phase I study. Prostate.

2011 Sep 15;71(13):1455-65.

- [2]. Khan FA, et al. Systematic review and meta-analysis of anakinra, sarilumab, siltuximab and tocilizumab for COVID-19. Thorax. 2021 Sep;76(9):907-919. doi: 10.1136/thoraxjnl-2020-215266. Epub 2021 Feb 12.
- [3]. Song L, et al. Antitumor efficacy of the anti-interleukin-6 (IL-6) antibody siltuximab in mouse xenograft models of lung cancer. J Thorac Oncol. 2014 Jul;9(7):974-982.
- [4]. Casneuf T, et al. Interleukin-6 is a potential therapeutic target in interleukin-6 dependent, estrogen receptor-α-positive breast cancer. Breast Cancer (Dove Med Press). 2016 Feb 3;8:13-27.

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

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Page 2 of 2 www.MedChemExpress.com