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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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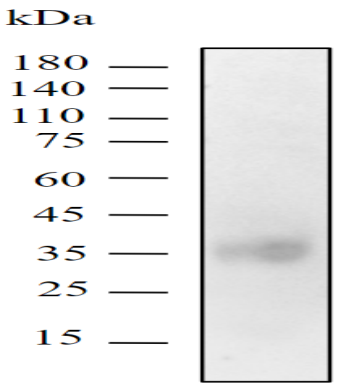

Atezolizumab Biosimilar – Research Grade [ICH4018]

Description

Bulk Atezolizumab Biosimilar – Research Grade

Product Benefits & Price Comparison:

ichorbio's Atezolizumab Biosimilar – Research Grade is manufactured in a cGMP compliant facility. It is strictly for research use only (RUO). Compare ichorbio's atezolizumab price with other leading manufacturers here.

Size:

ichorbio's research grade atezolizumab biosimilar is available in the following sizes:
5mg, 10mg, 20mg, 50mg, 100mg
ichorbio regularly manufactures bulk multi-gram amounts of our atezolizumab biosimilar – please contact us for pricing.

Target:

PD-L1

Clone:

n/a

Isotype:

IgG1 kappa

Other Names:

Programmed cell death 1 ligand 1, Cd274, PDCD1 ligand 1, Programmed death ligand 1, B7 homolog 1, B7-H1, B7h1, Pdcd1l1, Pdcd1lg1, Pdl1, PDL-1

Host:

Humanized

Species Reactivity:

Human

Specificity:

Detects human PD-L1. This non-therapeutic antibody uses the same variable region sequence as the therapeutic antibody Atezolizumab.

Purification Method:

This monoclonal antibody was purified using multi-step affinity chromatography methods such as Protein A or G depending on the species and isotype.

Background:

Atezolizumab biosimilar is an Fc-engineered, humanized, monoclonal antibody that binds to PD-L1 and blocks interactions with the PD-1 and B7.1 receptors. Atezolizumab biosimilar is a non-glycosylated IgG1 kappa immunoglobulin that has a calculated molecular mass of 145 kDa.

Concentration:

1.0 – 5.0 mg/ml

Formulation:

Sterile, colorless to slightly yellow liquid without preservatives, containing glacial acetic acid, histidine, sucrose and polysorbate 20, pH 5.8. BSA and Azide free.

Purity:

>95% by SDS-PAGE and HPLC

Endotoxin:

? 0.75 EU/mg as determined by the LAL method

Storage:

Atezolizumab Biosimilar – Research Grade is stable for at least four (4) weeks when stored sterile at 2-8°C. For long term storage aseptically aliquot in working volumes without diluting and store at –80°C. Avoid Repeated Freeze Thaw Cycles.

Applications:

Functional Assays

Application Notes:

Each investigator should determine their own optimal working dilution for specific applications.

Use:

ichorbio's atezolizumab biosimilar is for research use only (RUO): it is not for diagnostic or therapeutic procedures and cannot be purchased by patients.

Recent research on Atezolizumab:

Atezolizumab is a fully-humanized IgG1 monoclonal antibody directed against PD-L1 (programmed cell death 1 ligand 1). Atezolizumab has been extensively studied in cancer research for its ability to inhibit one of the main immune checkpoint pathways and enhance T-cell-mediated immune response against tumor cells. Atezolizumab was first approved by the FDA in May 2016 for the treatment of bladder cancer and is now used to treat advanced types of TNBC (triple-negative breast cancer), NSCLC (non-small cell lung cancer), small cell lung cancer and urothelial carcinoma. Based on its potential clinical benefit, it is also under investigation for other types of advanced and metastatic cancers. Here are some examples of atezolizumab's latest research.

Narayan et al. (2020) published in Clinical Cancer Research a summary of IMpassion130, the randomized study that allowed FDA approval for the use of atezolizumab in combination with paclitaxel-protein bound for the treatment of patients with advanced or metastatic TNBC. The authors not only summarized the data but also analyzed the benefit of this combination treatment after 13 months. The promising initial results were confirmed when they observed an improved estimated progression-free survival for patients treated with atezolizumab (7.4 months) compared to patients in the placebo group (4.8 months).

In a study by Kurzrock et al. (2020), the objective response rate of atezolizumab was measured for SGC (salivary gland carcinoma) patients. SGCs do not usually respond well to common chemotherapy and because of the rarity of the disease, only a few studies focused on finding effective treatments. Here, using data from the multi-center study MyPathway, the authors observed promising partial response and prolonged stable disease in a patient with high tumor mutational burden treated with atezolizumab alone.

Okauchi et al. (2020) described the benefit of combination therapy with common chemotherapeutic agents and an immune checkpoint inhibitor for a patient with double primary cancers (metastatic lung adenocarcinoma and locally advanced epipharyngeal carcinoma). The authors observed not only the regression of both cancers but also no signs of tumor progression after 7 months. This so far, the only study providing proof of principle that the combination of chemotherapy and immune checkpoint inhibitors may be effective to treat double primary cancers.
Hopkins et al. (2020) designed a study to create a prognostic tool of survival for patients with advanced lung cancer treated with immune checkpoint inhibitors. Using clinicopathological and development data from the randomized trials OAK and POPLAR, they analyzed overall survival and progression-free survival as primary and secondary outcomes respectively. According to their study, they successfully developed a prognostic tool to identify patients who could benefit from atezolizumab therapy.
At the same time, Zhao et al. (2020) performed a systematic search for randomized controlled trials of the most common checkpoint inhibitors to measure fatal adverse events associated with their use in

patients with various cancers. Interestingly, they found that so far, monotherapy with PD-1/PD-L1 inhibitors is positively associated with reduced risk of mortality in patients with solid tumors compared to traditional therapy.

KEYWORDS: PDL1; PD1; immune checkpoints; non-small cell lung cancer; SGC; breast cancer; atezolizumab research; advanced tumors.

References:

Hopkins AM, Kichenadasse G, Garrett-Mayer E, Karapetis CS, Rowland A, Sorich MJ. (2020) Development and validation of a prognostic model for patients with advanced lung cancer treated with the immune checkpoint inhibitor atezolizumab. Clin Cancer Res. 2020 Feb 21.

Kurzrock R, Bowles DW, Kang H, Meric-Bernstam F, Hainsworth J, Spigel DR, Bose R, Burris H, Sweeney CJ, Beattie MS, Blotner S, Schulze K, Cuchelkar V, Swanton C. (2020) Targeted therapy for advanced salivary gland carcinoma based on molecular profiling: results from MyPathway, a phase IIa multiple basket study. Ann Oncol. 2020 Mar;31(3):412-421.

Narayan P, Wahby S, Gao JJ, Amiri-Kordestani L, Ibrahim A, Bloomquist E, Tang S, Xu Y, Liu J, Fu W, Song P, King-Kallimanis BL, Hou S, Gong Y, Kalavar S, Ghosh S, Philip R, Goldberg KB, Theoret MR, Blumenthal GM, Kluetz PG, Sridhara R, Pazdur R, Beaver JA. (2020) FDA Approval Summary: Atezolizumab plus paclitaxel protein-bound for the treatment of patients with advanced or metastatic TNBC whose tumors express PD-L1. Clin Cancer Res. 2020 Jan 30.

Okauchi S, Sasatani Y, Ohara G, Kagohashi K, Satoh H. (2020) Combined Atezolizumab and Chemotherapy for a Patient With Double Primary Cancers. In Vivo. 2020 Jan-Feb;34(1):389-392.

Zhao B, Zhao H, Zhao J. (2020) Fatal adverse events associated with programmed cell death protein 1 or programmed cell death-ligand 1 monotherapy in cancer. Ther Adv Med Oncol. 2020 Feb 6;12:1758835919895753.

Mixed lymphocyte reaction :

PBMCs (CFSE-labeled) isolated from a healthy donor were co-cultured with our product XYZ (different cell numbers) for 6 days in MEMa+P/S+5%HPS medium. Then, cells were stained with anti-CD4-PerCP eF710, anti-CD8-APC-H7 and anti-CD56-PE-Cy7 and FACS. The effect of ichorbio's atezolizumab biosimilar on the frequency of CD4, CD8 T cells and NK cells is the same as Tecentriq.

Isotype Control:

Bulk Human IgG1 Isotype Control (IB1) [ICH2254]