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Human PD-L1 Monoclonal Antibody

Catalog No.: YR0077

Basic Information

Molecular Weight
150 kDa

Endotoxin
<1EU/mg (<0.001EU/μg)Determined by LAL gel clotting assay

Sterility
0.2 μm filtration

Aggregation
<5% Determined by SECP

Purity
>95% Determined by SDS-PAGE

Background

What is Atezolizumab biosimilar research grade? Atezolizumab is a humanized monoclonal antibody directed against the human protein ligand PD-L1, with potential immune checkpoint inhibitory and antineoplastic activities. Atezolizumab is an Fc-engineered, humanized, monoclonal antibody (IgG1κ isotype). Atezolizumab biosimilar uses the same protein sequences as the therapeutic antibody atezolizumab. Atezolizumab lacks the N-glycosylation site in its Fc region by changing an aspartic acid into alanine at amino acid position 298 (amino acid position 297 according to EU nomenclature, N297A) in the heavy chain leading to minimized binding to FcγRs.PD-L1 (B7-H1 or CD274, programmed cell death ligand 1) and PD-L2 (B2-DC or CD273, programmed cell death ligand 2) are the two ligands for the receptor PD-1 (CD279, programmed death 1). PD-L1 is an immune checkpoint molecule expressed on both tumor cells and certain immune cells. The binding of PD-L1 to its receptors PD-1 or B7.1 on activated T cells causes an inhibitory signal to suppress their production in the lymph nodes, thereby preventing immune responses to events such as pregnancy or autoimmune disease. This pathway is also utilized by cancer cells to evade the immune system through evasion of anti-tumor T-cell response. Furthermore, over-expression of PD-L1 and PD-1 has been linked to increased tumor aggressiveness and poorer prognosis. Atezolizumab binds directly and selectively to PD-L1 and blocks interaction with both PD-1 and B7.1 receptors, thus reinvigorates and enhances the body’s adaptive anti-cancer activity. Disrupting the PD-L1/B7.1 interaction may also enhance T-cell priming, which could result in increased duration of response and survival.

Reported Applications

ELISA

Immunogen Information

Clone
Atezolizumab Biosimilar

Isotype
Human IgG1 kappa

Immunogen
Human PD-L1

RecommendedIsotype Control(s)
In Vivo Grade Recombinant Human IgG1 Kappa Isotype Control Antibody

Recommended Dilution Buffer

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Product Information

Production
Purified from cell culture supernatant in an animal-free facility

Purification
Protein A or G purification

Storage
Store at -20℃