Catalog# BP-50539

Atezolizumab Biosimilar, Human PD-L1 Monoclonal Antibody

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.

Product Details	
CAS No.	1380723-44-3
Species Reactivity	Human
Source	Atezolizumab biosimilar CHO stable cell line
Isotype	Human IgG1 kappa
Class	Monoclonal
Type	Antibody
Clone	Atezolizumab biosimilar
Conjugate	Unconjugated
Immunogen	Human PDL1 protein
Purity	>95%
Molecular Weight	144.6 kDa
Protein Concentration	1 mg/ml
Formulation	0.2 μM filtered PBS solution, pH 6.0
Storage conditions	4°C for short time, -20°C or -80°C for long time.