C027P.h1NA: Pembrolizumab Biosimilar, Human IgG1 N297A Mutant

Catalog No.: C027P.h1NA | **Product Name:** Pembrolizumab Biosimilar, Human IgG1 N297A Mutant

Pembrolizumab Biosimilar, Human IgG1 N297A Mutant. The research grade Pembrolizumab biosimilar protein is for research use only (RUO). Recombinant human IgG isotype controls are available. Condition of sample preparation and optimal sample dilution should be determined experimentally by the investigator.

PRODUCT SPECIFICATIONS

Catalog No.	C027P.h1NA
Product Name	Pembrolizumab Biosimilar, Human IgG1 N297A Mutant
Supplier Name	Syd Labs, Inc.
Brand Name	Syd Labs
Synonyms	programmed cell death protein 1, PD1, CD279, cluster of differentiation 279
Summary	Recombinant Humanized IgG1 N297A Monoclonal Antibody.
Isotype	Human IgG1 N297A Mutant.
Source/Host	The anti-human programmed cell death protein 1 (PD-1) monoclonal antibody pembrolizumab biosimilar was produced in the pembrolizumab biosimilar CHO stable cell line.
Specificity/Sensitivity	The research grade pembrolizumab biosimilar specifically binds to the programmed cell death protein 1 (PD-1 or PD1), antagonizing its interaction with its known ligands PD-L1 or PDL1, and PD-L2 or PDL2.
Applications	ELISA, neutralization, functional assays such as bioanalytical PK and ADA assays, and those assays for studying biological pathways affected by pembrolizumab.
Form Of Antibody	0.2 μM filtered solution, pH 5.5, no stabilizers or preservatives.
Endotoxin	< 1 EU per 1 mg of the protein by the LAL method.
Purity	>95% by SDS-PAGE under reducing conditions and HPLC.
Shipping	The Pembrolizumab Biosimilar, Human IgG1 N297A Mutant is shipped with ice pack. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70°C as supplied. 1 month from date of receipt, 2 to 8°C as supplied.
Note	The research grade Pembrolizumab biosimilar protein is for research use only (RUO). Recombinant human IgG isotype controls are available. Condition of sample preparation and optimal sample dilution should be determined experimentally by the investigator.

REFERENCES & BACKGROUND

What is Pembrolizumab biosimilar Human IgG1 N297A mutant research grade? Pembrolizumab is a highly selective IgG4-kappa humanized monoclonal antibody against PD-1 receptor. It was generated by grafting the variable sequences of a very high-affinity mouse antihuman PD-1 antibody onto a human IgG4-kappa isotype containing a stabilizing S228P Fc mutation. Pembrolizumab Biosimilar uses the same protein sequences as the therapeutic antibody pembrolizumab (Keytruda). This Human IgG1 N297A isotype variant retains the same antigen-binding variable regions while incorporating the N297A mutation that removes the N-linked glycosylation site in the Fc region, resulting in aglycosylated IgG1 with greatly diminished binding to Fcγ receptors and C1q, thereby abolishing ADCC and CDC effector functions. By binding to PD-1, it blocks the interaction between PD-1 and its ligands PD-L1 and PD-L2, thereby releasing the inhibition of T-cell immune responses and enhancing anti-tumor immunity.