C037P: Tremelimumab Biosimilar, Anti-human CTLA-4 Monoclonal Antibody

Catalog No.: C037P | **Product Name:** Tremelimumab Biosimilar, Human CTLA-4 monoclonal antibody

Tremelimumab Biosimilar, Human CTLA-4 monoclonal antibody. The research grade Tremelimumab biosimilar protein is for research use only (RUO). Recombinant human IgG2 isotype controls are available. Condition of sample preparation and optimal sample dilution should be determined experimentally by the investigator.

PRODUCT SPECIFICATIONS

Catalog No.	C037P
Product Name	Tremelimumab Biosimilar, Human CTLA-4 monoclonal antibody
Supplier Name	Syd Labs, Inc.
Brand Name	Syd Labs
Synonyms	cytotoxic T-lymphocyte-associated antigen 4, cytotoxic T-lymphocyte antigen 4, CD152, CTLA4
Summary	Recombinant Chimeric IgG2 Monoclonal Antibody.
Isotype	Human IgG2.
Source/Host	The anti-human CTLA-4 monoclonal antibody tremelimumab biosimilar (research grade) was produced in mammalian cells.
Specificity/Sensitivity	The research grade tremelimumab biosimilar specifically binds to the human protein receptor CD152 / CTLA4.
Applications	ELISA, neutralization, in vivo functional assays such as bioanalytical PK and ADA assays, and those in vitro and in vivo assays for studying biological pathways affected by tremelimumab.
Form Of Antibody	0.2 μM filtered solution, pH 7.4, 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 research grade tremelimumab biosimilar 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 Tremelimumab biosimilar protein is for research use only (RUO). Recombinant human IgG2 isotype controls are available. Condition of sample preparation and optimal sample dilution should be determined experimentally by the investigator.

REFERENCES & BACKGROUND

What is Tremelimumab biosimilar research grade? Tremelimumab (formerly ticilimumab) is a fully human monoclonal antibody against CTLA-4 / CD152. It is an immune checkpoint blocker. Unlike Ipilimumab (another fully human anti-CTLA-4 / CD152 monoclonal antibody), which is an IgG1 isotype, tremelimumab is an IgG2 isotype. Tremelimumab Biosimilar uses the same protein sequences as the therapeutic antibody tremelimumab. Tremelimumab aims to stimulate an immune system attack on tumors. Cytotoxic T lymphocytes (CTLs) can recognize and destroy cancer cells. However, there is also an inhibitory mechanism (immune checkpoint) that interrupts this destruction. Tremelimumab turns off this inhibitory mechanism and allows CTLs to continue to destroy the cancer cells. This is immune checkpoint blockade. Tremelimumab binds to the protein CTLA-4 / CD152, which is expressed on the surface of activated T lymphocytes and inhibits the killing of cancer cells. Tremelimumab blocks the binding of the antigen-presenting cell ligands B7.1 and B7.2 to CTLA-4 / CD152, resulting in inhibition of B7-CTLA-4-mediated downregulation of T-cell activation; subsequently, B7.1 or B7.2 may interact with another T-cell surface receptor protein, CD28, resulting in a B7-CD28-mediated T-cell activation unopposed by B7-CTLA-4-mediated inhibition.