C010P.4S: Rituximab Biosimilar, Human IgG4 S228P Mutant

Catalog No.: C010P.4S | **Product Name:** Rituximab Biosimilar, Human IgG4 S228P Mutant

Rituximab Biosimilar, Human IgG4 S228P Mutant. The research grade rituximab biosimilar protein is for research use only (RUO). Recombinant human IgG1 isotype controls are available. Rituximab biosimilar CHO stable cell line is available for licensing to manufacture the rituximab biosimilar protein.

PRODUCT SPECIFICATIONS

Catalog No.	C010P.4S
Product Name	Rituximab Biosimilar, Human IgG4 S228P Mutant
Supplier Name	Syd Labs, Inc.
Brand Name	Syd Labs
Synonyms	Anti-CD20 Chimeric Monoclonal Antibody
Summary	Recombinant Humanized IgG1 Monoclonal Antibody.
Isotype	Human IgG4 kappa (S228P Mutant)
Source/Host	The monoclonal antibody rituximab biosimilar was produced in the Rituximab biosimilar CHO stable cell line.
Specificity/Sensitivity	The monoclonal antibody rituximab biosimilar specifically binds to the human TNF alpha.
Applications	ELISA, neutralization, functional assays such as bioanalytical PK and ADA assays, and those assays for studying biological pathways affected by rituximab.
Form Of Antibody	0.2 μM filtered solution, pH 6.5, 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 Rituximab Biosimilar, Human IgG4 S228P 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 rituximab biosimilar protein is for research use only (RUO). Recombinant human IgG1 isotype controls are available. Rituximab biosimilar CHO stable cell line is available for licensing to manufacture the rituximab biosimilar protein.

REFERENCES & BACKGROUND

B-lymphocyte antigen CD20 encoded by the MS4A1 gene is an activated-glycosylated phosphoprotein on the surface of all B-cells. The function of the membrane protein is to stimulate B-cell immune response, specifically against T-independent antigens though its natural ligand remains unknown. CD20 is important for the development and differentiation of B-cells into plasma cells.

Rituximab, a chimeric anti-CD20 monoclonal antibody, destroys B cells and is used to treat diseases with excessive numbers of B cells, overactive B cells, or dysfunctional B cells, such as many lymphomas, leukemias, transplant rejection, and autoimmune disorders. The S228P mutation stabilizes the hinge region of human IgG4, preventing Fab-arm exchange and ensuring stable bivalent binding for comparative assays.