Data Sheet (Cat.No.TMPY-05420)

TargetMol

CD19 Protein, Cynomolgus, Rhesus, Recombinant (His)

General Information

Synonyms:	CD19 molecule
Protein Construction:	A DNA sequence encoding the cynomolgus / rhesus CD19 (XP_005591597.1) (Met1-Lys292) was expressed with a polyhistidine tag at the C-terminus. Cynomolgus and Rhesus CD19 sequences are identical. Predicted N terminal: Gln 21
Species:	Cynomolgus,Rhesus
Expression Host:	HEK293 Cells
Accession:	XP_005591597.1
Molecular Weight:	31.4 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

The cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then

alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. Cluster of differentiation 19 (CD19) is a member of CD system. CD19 is a cell surface molecule that assembles with the antigen receptor of B-cells. This results in a descent in the threshold for antigen receptor-dependent stimulation. A simplified view holds that the ability of B-cells to respond to the various antigens in a specific and sensitive manner is achieved in the presence of low-affinity antigen receptors. CD19 primarily acts as a B-cell co-receptor in conjunction with CD21 and CD81. The formation of the receptor complex is induced by antigen and CD19, induced by exogenous antigen, has been found cytoplasmic tail phosphorylated and bind to sIg.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

Reference

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