Data Sheet (Cat.No.TMPY-03096)

TargetMol

CD99 Protein, Rat, Recombinant (hFc)

General Information

Synonyms:	CD99 molecule
Protein Construction:	A DNA sequence encoding the rat CD99 (B4F7A5) (Met1-Gly127) was expressed, fused with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Asp 25
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	B4F7A5
Molecular Weight:	37.6 kDa (predicted); 47 kDa (reducing conditions)

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:	> 95 % 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.

Shipping:

In general, Lyophilized powders are shipping with blue 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. CD99 is a transmembrane protein expressed on most hematopoietic cells, endothelial cells and at the borders between confluent cells. CD99 is also found expressed in the development of normal ovary and testis as well as in 25 sex cord-stromal tumors, 7 epithelial neoplasms, and 6 germ cell tumors. CD99 may be a useful marker for sex cord-stromal tumors and that its degree of reactivity correlates with the degree of differentiation in Sertoli-Leydig cell tumors. Additionally, CD99 might aid in distinguishing granulose cell tumors of the ovary from poorly differentiated carcinomas and it has been reported to be a sensitive and specific marker for Ewing's sarcoma and primitive neuroectodermal tumor.

Reference

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Schenkel AR,et al.(2002) CD99 plays a major role in the migration of monocytes through endothelial junctions. Nature Immunology. 3: 143 - 50.
Gordon MD,et al.(1998) CD99, keratin, and vimentin staining of sex cord-stromal tumors, normal ovary, and testis. Mod Pathol. 11 (8): 769-73.

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