

## CD70 Protein, Rat, Recombinant (hFc)

### General Information

Synonyms:	CD70 molecule
Protein Construction:	A DNA sequence encoding the rat CD70 (D3ZGU3) (Gln46-Pro195) was expressed, fused with Fc region of human IgG1 at the N-terminus. Predicted N terminal: Glu
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	D3ZGU3
Molecular Weight:	45 kDa (predicted); 55 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	Immobilized mouse CD27-His at 10 µg/ml (100 µl/well) can bind rat Fc-CD70 with a linear range of 0.16-1.25 µg/ml.
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.

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

CD70, a member of the tumor necrosis factor superfamily, is restricted to activated T- and B-lymphocytes and mature dendritic cells. Binding of CD70 to its receptor, CD27, is important in priming, effector functions, differentiation and memory formation of T-cells as well as plasma and memory B-cell generation. Tight control of CD70 expression is required to prevent lethal immunodeficiency. By selective transcription, CD70 is largely confined to activated lymphocytes and dendritic cells (DC). As a type II transmembrane receptor, CD70 is normally

expressed on a subset of B, T and NK cells, where it plays a costimulatory role in immune cell activation. Immunohistochemical analysis of CD70 expression in multiple carcinoma types. The restricted expression pattern of CD70 in normal tissues and its widespread expression in various malignancies makes it an attractive target for antibody-based therapeutics. Investigations to exploit CD70 as a cancer target have lead to the identification of potential antibody-based clinical candidates. Cancer Immunotherapy Co-stimulatory Immune Checkpoint Targets Immune Checkpoint Proteins Immune Checkpoint Targets Immunotherapy Targeted Therapy

### Reference

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