

## CD81 Protein, Human, Recombinant (mFc)

### General Information

|                       |  |
|-----------------------|--|
| Synonyms:             | CD81 molecule;TSPAN28;CVID6;TAPA1;S5.7   |
| Protein Construction: | A DNA sequence encoding the human CD81 (NP_004347.1) (Phe113-Lys201) was expressed with the Fc region of mouse IgG1 at the N-terminus. Predicted N terminal: Asp |
| Species:              | Human  |
| Expression Host:      | HEK293 Cells   |
| Accession:            | P60033   |
| Molecular Weight:     | 36.4 kDa (predicted); 38-42 kDa (reducing condition, due to glycosylation)   |

### 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.

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

CD81, also known as TAPA-1, belongs to the transmembrane 4 superfamily, also known as the tetraspanin family. Members of this family mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. CD81 is a widely expressed cell-surface protein involved in an astonishing variety of biologic responses. It is related to adhesion, morphology, activation, proliferation, and differentiation of B, T, and other cells. On B cells CD81 is part of a complex with CD21, CD19, and Leu13. This complex reduces the

threshold for B cell activation via the B cell receptor by bridging Ag specific recognition and CD21-mediated complement recognition.

### Reference

Petracca R. et al., 2000, J Virol. 74 (10): 4824-30.

Bartosch B. et al., 2003, The Journal of Biological Chemistry. 278 (43): 41624-30.

Clark KL. et al., 2001, Journal of Immunology. 167 (9): 5115-21.

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