

## SEMA4D Protein, Rhesus, Recombinant (His)

### General Information

Synonyms:	semaphorin 4D
Protein Construction:	A DNA sequence encoding the rhesus SEMA4D (EHH24221.1) (Met1-Arg734) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Met 22
Species:	Rhesus
Expression Host:	HEK293 Cells
Accession:	EHH24221.1
Molecular Weight:	80.7 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

Semaphorin 4D (SEMA4D or CD100) is a member of the semaphorin family of proteins and an important mediator of the movement and differentiation of multiple cell types, including those of the immune, vascular, and nervous systems. VEGF and SEMA4D had a positive correlation with the malignant degree of ovarian cancer, and SEMA4D can serve as an independent prognostic factor. SEMA4D was the first semaphorin described to have immune functions and serves important roles in T cell priming, antibody production, and cell-to-cell adhesion. Proteolytic

cleavage of SEMA4D from the cell surface gives rise to a soluble fragment of SEMA4D (sSEMA4D). Similar to the transmembranal form, sSEMA4D is thought to have immunoregulatory properties.

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