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## Recombinant Human soluble CD100

**Description:** The Semaphorins are a large family of phylogenetically conserved proteins that play a pivotal role in maintaining homeostasis in the immune system. Twenty members of this family have been identified and categorized into eight subclasses based on sequence similarity and distinctive structural features. CD100, also known as Sema4D, is a 150 kDa transmembrane class IV semaphorin. Studies have shown that CD100 can induce monocyte migration, T-cell activation, and B-cell survival, as well as T/B cell and T/DC “cooperation”. The CD100 precursor contains 862 amino acids, including a 21 a.a. signal sequence, a 713 a.a. extracellular domain, a 21 a.a. transmembrane sequence, and a 107 a.a. cytoplasmic region. The extracellular sequence contains several structural features, including a 479 a.a. “sema” domain, a 79 a.a. Ig-like sequence, and a 52 a.a. “Plexin-type repeat”. Recombinant soluble CD100 (sCD100) is a 78.9 kDa protein comprising the extracellular domain of CD100 (711 amino acids). SDS-PAGE analysis run under non-reducing conditions shows a mixture of disulfide linked dimer and monomer.

<b>Source:</b>	CHO cells
<b>Molecular Weight:</b>	78.9 kDa
<b>Purity:</b>	> 97%, by SDS-PAGE and HPLC analysis
<b>Endotoxin level:</b>	< 0.1 ng per µg of sCD100
<b>Formulation:</b>	lyophilized

**Biological Activity:** Testing in progress!

**Stability:** The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted sCD100 is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. **Avoid repeated freeze/thaw cycles.**

**Usage:** Human sCD100 is offered for research use. Not for drug use. **Not for human use!**

**Catalogue number:** S01-063

**Size:** 20 µg