

# Protein S (Human)

1.00 mg

Ref#: HPS

Lot#: xxxxxx

Exp. Date: xxxx-xx



For Research Use Only  
Not for Use in Diagnostic Procedures  
For *in-vitro* Use Only

<b>Description:</b>	Protein S (Human)
<b>Format:</b>	Lyophilized in 20 mM Tris-HCl / 0.1 M NaCl / 1 mM Benzamidine/ pH 7.3
<b>Host:</b>	Human
<b>Storage:</b>	Store between +2 and +8°C After reconstitution aliquot and freeze at ≤-60°C
<b>Reconstitution:</b>	We recommend hydrating the protein with sterile water to the original volume
<b>Volume:</b>	1 vial containing <b>0.877 mL</b>
<b>Total Protein:</b>	1.00 mg
<b>Concentration:</b>	<b>1.14 mg/mL</b> before lyophilisation by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 9.5$
<b>Molecular weight:</b>	69,000 daltons

Human Protein S (molecular weight about 77kDa) is a vitamin K-dependent plasma glycoprotein synthesized in the liver and composed of a single polypeptide chain. Protein S is a non-enzymatic cofactor to APC for the inactivation of FVa and FVIIIa. Total Protein S concentration in human plasma is about 25 µg/mL (325 µM). About 40% of plasma Protein S exists in free form and 60% is non-covalently complexed with C4b Binding Protein (C4BP). Complex formation does not lead to inactivation of C4BP, although Protein S no longer functions as a cofactor.

The human Protein S (free form) is >95% pure via SDS-PAGE.

The above protein was purified from Human plasma that was tested and found negative by FDA accepted methods for Anti-HIV 1/2, Anti-HTLV I & II, HBsAg, Anti-HCV, Syphilis, HBC Ab, HIV-1 p24 Ag or HIV-1 RNA, HCV RNA and HBV RNA. Donors are screened for CJD (Creutzfeld-Jakob Disease).