

Protein S (Human)

1.00 mg

Ref#: HPS

Lot#: xxxxxx

Exp. Date: xxxx-xx



Store at +2 to +8°C

For Research Use Only

Not for Use in Diagnostic Procedures

For *in vitro* use only

Description:	Protein S (Human)
Format:	Lyophilized in 20 mM Tris-HCl / 0.1 M NaCl / 1 mM Benzamidine/ pH 7.4
Host:	Human
Storage:	Store between +2 and +8°C After reconstitution aliquot and freeze at ≤-60°C
Reconstitution:	We recommend hydrating the protein with sterile water to the original volume
Volume:	1 vial containing 0.617 mL
Total Protein:	1.00 mg
Concentration:	1.62 mg/mL before lyophilisation by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 9.5$
Molecular weight:	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).