Description: Protac®, a single chain glycoprotein, is a fast-acting protein C activator isolated from the venom of the copperhead snake *Agkistrodon contortrix* and closely related snake species. This serine proteinase rapidly converts protein C of man and other vertebrates into activated protein C which may be determined either by measuring its prolonging effect on the activated partial thromboplastin time (APTT) or by measuring its enzyme activity by means of a specific chromogenic substrate.

Application: Determination of protein C and protein S levels.

Origin: *Agkistrodon contortrix* snake venom  
**MW:** 36'000 to 42'000

Assay: 
- **Chromogenic method**
  - 0.050 ml human citrated plasma
  - 0.050 ml Protac® (0.5 unit/ml)
  - => incubate for 5 min at 37°C
  - 0.800 ml 50 mM Tris-HCl buffer, pH 8.4
  - 0.100 ml Pefachrome®PCa (4 mM)
  - => Determination of ΔOD/min at 405 nm
  - 0.025 ml human citrated plasma
  - 0.025 ml Protac® (0.1 unit/ml)
  - 0.025 ml Actin®
  - => incubate for 4 min at 37°C
  - 0.100 ml 25 mM CaCl₂
  - => Determination of clotting time

- **Clotting method**
  - 0.050 ml  human citrated plasma
  - 0.025 ml  human citrated plasma
  - 0.050 ml  Protac® (0.5 unit/ml)
  - 0.025 ml  Protac® (0.1 unit/ml)
  - 0.025 ml  Actin®
  - => incubate for 5 min at 37°C
  - 0.800 ml  50 mM Tris-HCl buffer, pH 8.4
  - 0.100 ml  Pefachrome®PCa (4 mM)
  - => Determination of clotting time

Unit definition: 1 Unit is the amount of Protac® which activates the amount of protein C contained in 1 ml of normal citrated human plasma within 5 min at 37°C.

Stability: 
- Lyophilised vials: 5 years
- Reconstituted vials: 30 days at 2 – 8°C, approx. 7 days at 37°C  
  - 1 year at -20°C, 1 month at 20°C

Storage: May be used by the expiry date given on the label when stored unopened, protected from moisture, in the dark, 2 - 8°C. Avoid contamination of the reagents by micro-organisms. Shipment of product does not require cooling during the time of transportation.
References:

Bastian S. Protein C-Diagnostik – Methoden, Interpretation und Limitationen. ellipse 2002; 18 (1): 11-16


Package size: Vial containing 3 unit/vial
Bulk [unit] 113-04

Code: 113-01

FOR RESEARCH USE ONLY. NOT FOR HUMAN USE OR DRUG USE.

Registered Trademark of Pentapharm