Human Spleen Cathepsin S

**Description:**
Like Cathepsins B, H, and L, Cathepsin S belongs to the group of lysosomal cysteine proteases. Cathepsin S is found primarily in the spleen and in lung macrophages. Its level is elevated in the brain tissue of those with Alzheimer's disease and Down syndrome. Cathepsin S may function in the processing of amyloid precursor protein to amyloid beta peptides. Cathepsin S activity is detected using Z-Val-Val-Arg-AMC (Bachem: I-1540). Prepared from tissue shown to be non reactive for HbsAG, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests. >95 percent pure by SDS-PAGE.

This gene encodes coagulation factor VII which is a vitamin K-dependent factor essential for hemostasis. This factor circulates in the blood in a zymogen form, and is converted to an active form by either factor IXa, factor Xa, factor XIIa, or thrombin by minor proteolysis. Upon activation of the factor VII, a heavy chain containing a catalytic domain and a light chain containing 2 EGF-like domains are generated, and two chains are held together by a disulfide bond. In the presence of factor III and calcium ions, the activated factor then further activates the coagulation cascade by converting factor IX to factor IXa and/or factor X to factor Xa. Alternative splicing of this gene results in 2 transcripts. Defects in this gene can cause coagulopathy.

**Concentration:**
Lyophilized

**Gene ID:**
1520

**Source:**
Human spleen

**Molecular Weight:**
24 kDa

**Formulation:**
Lyophilized powder in 0.1M Sodium Acetate; 1mM EDTA; pH 5.5

**Purity:**
>95% by SDS-PAGE analysis

**Applications:**
The optimal concentration should be determined by the user for each specific application.

**Storage & Stability:**
When stored at -80°C product is stable for 3 years from date of delivery. Avoid repeated freeze-thaw cycles.

**NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.**