# Recombinant Human Coagulation Factor XIII B chain/F13B protein (His Tag)

Catalog Number: PDMH100391



Note: Centrifuge before opening to ensure complete recovery of vial contents.

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Description	Ц

 Species
 Human

 Mol\_Mass
 72.6 kDa

 Accession
 P05160

**Bio-activity** Not validated for activity

## **Properties**

**Purity** > 95% as determined by reducing SDS-PAGE.

**Endotoxin** < 1.0 EU/mg of the protein as determined by the LAL method

**Storage** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80

°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.

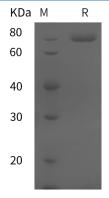
ShippingThis product is provided as lyophilized powder which is shipped with ice packs.FormulationLyophilized from a 0.2 μm filtered solution in PBS with 5% Trehalose and 5%

Mannitol.

**Reconstitution** It is recommended that sterile water be added to the vial to prepare a stock solution of

0.5 mg/mL. Concentration is measured by UV-Vis.

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

## For Research Use Only

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Coagulation factor XIII B chain, also known as Fibrin-stabilizing factor B subunit, Protein-glutamine gamma-glutamyltransferase B chain, Transglutaminase B chain and F13B, is a secreted protein which contains 10 Sushi (CCP / SCR) domains. Coagulation factor XIII is the last zymogen to become activated in the blood coagulation cascade. Plasma factor XIII is a heterotetramer composed of 2 A subunits and 2 B subunits. The A subunits have catalytic function, and the B subunits do not have enzymatic activity and may serve as a plasma carrier molecules. Platelet factor XIII is composed of just 2 A subunits, which are identical to those of plasma origin. The B chain of factor XIII is not catalytically active, but is thought to stabilize the A subunits and regulate the rate of transglutaminase formation by thrombin. Factor XIII acts as a transglutaminase to catalyze the formation of gamma-glutamyl-epsilon-lysine crosslinking between fibrin molecules, thus stabilizing the fibrin clot. Factor XIII deficiency is classified into two categories: type I deficiency, characterized by the lack of both the A and B subunits, and type II deficiency, characterized by the lack of the A subunit alone. These defects can result in a lifelong bleeding tendency, defective wound healing, and habitual abortion. Defects in F13B are the cause of factor XIII subunit B deficiency (FA13BD) which is an autosomal recessive disorder characterized by a life-long bleeding tendency, impaired wound healing and spontaneous abortion in affected women.