

Product number **F006**  
 Revision number **RN2.0**

<b>Product Name</b>	FITC-labeled Fibrinogen
<b>Background info</b>	Fibrinogen (factor I) is a plasma glycoprotein that is converted by thrombin into fibrin by cleaving fibrinopeptides A+B during blood coagulation. Fibrin forms the blood clot and is subsequently cross linked by factor XIIIa. Human fibrinogen is a hexamer composed of three pairs of chains ( $\alpha_2\beta_2\gamma_2$ ) with a molecular weight of 340 kDa.
<b>Quantity</b>	5 mg
<b>Source</b>	Tested human plasma from healthy donors (HBSAG, HCV and HIV-1/HIV-2 negative).
<b>Solubility</b>	at least 10 mg/ml in water
<b>Formulation</b>	F006 is lyophilized from a fibrinogen solution in 20 mM Tris-HCl pH 7.2, 300 mM NaCl.
<b>Reconstitution</b>	Add at least the volume of H <sub>2</sub> O the protein is lyophilized from (see Certificate of Analysis) to the vial of lyophilized powder. Rotate vial gently until solid dissolves. After reconstitution the solution should be stored frozen in working aliquots.
<b>Appearance</b>	yellow, solid
<b>Activation</b>	Ca <sup>2+</sup> , Thrombin
<b>Degree of label (DOL)</b>	≥ 6 (see Certificate of Analysis)
<b>Calculation of DOL</b>	<p>Protein concentration = <math>[A_{280} - (A_{492} * 0.35)] * DF / \epsilon_{Fib}</math></p> <p>Degree of Labeling (DOL) = <math>(A_{492} * DF / \epsilon_{FITC}) / ([Fibrinogen] / MW_{Fibrinogen})</math></p> <p>Abbreviations</p> <p><math>\epsilon_{Fib}</math>: extinction coefficient of fibrinogen at A<sub>280</sub> with 1.51 ml*mg<sup>-1</sup>*cm<sup>-1</sup></p> <p><math>\epsilon_{FITC}</math>: extinction coefficient of FITC at A<sub>492</sub> with 72,000 (M*cm)<sup>-1</sup></p> <p>DF dilution factor</p> <p>0.35: correction factor</p> <p>MW<sub>Fibrinogen</sub> molecular weight of fibrinogen with 340,000 Da</p> <p>A<sub>280</sub> absorbance at 280 nm</p> <p>A<sub>492</sub> absorbance at 492 nm</p>
<b>Application</b>	The FITC-labeled fibrinogen may be used as substrate for FXIII in a crosslinking reaction. The crosslinking of fibrin followed by fibrinolysis gives information about clot-rigidity and therefore about the degree of clot-formation catalysed by FXIII.
<b>Reference</b>	Mutch et al., J Thromb Haemost. 2010, 8:2017-24
<b>Storage</b>	Storage for several months is possible at ≤ - 20°C. <b>Delivery is possible at ambient temperature</b>
<b>Related products</b>	<p>F004 Fibrinogen, from human plasma</p> <p>T056 Human alpha thrombin, highly active</p> <p>T027 Human blood coagulation factor XIII (A subunit)</p> <p>T007 Coagulation factor XIII, purified from human plasma (pFXIII, A<sub>2</sub>B<sub>2</sub>)</p>
<b>Release date</b>	02 December 2021
<b>NOTE</b>	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.