

F2

## Native Human Thrombin, Immobilized

<b>Catalog No.</b>	CRU128A CRU128B	<b>Quantity:</b>	2 ml packed resin 5 ml packed resin
<b>Alternate Names:</b>	Prothrombin, Coagulation factor II, F2		
<b>Description:</b>	Immobilized Human Thrombin is ideal for cleavage of recombinant fusion proteins with an Leu-Val-Pro-Arg/Gly-Ser thrombin recognition sequence. The agarose resin is easily removed by centrifugation or filtration and is reusable.		
<b>UniProt ID:</b>	P00734		
<b>Concentration:</b>	2.0 mg/ml coupled, lot specific		
<b>Source:</b>	Human plasma		
<b>Formulation:</b>	1:1 slurry of resin in 0.1 M Tris, 0.15 M NaCl, 0.02% sodium azide, pH 7.5		
<b>Purity:</b>	> 95% by SDS-PAGE analysis		
<b>Volume:</b>	4ml or 10ml of 1:1 slurry		
<b>Biological Activity:</b>	<b>Immobilized Human Thrombin Digestion Protocol</b> <ol style="list-style-type: none"><li>1. Make a digestion buffer consisting of 0.05M Tris-HCl, 0.01M CaCl<sub>2</sub>, pH 8.0</li><li>2. Dissolve 1 mg of your protein sample in 1 ml digestion buffer</li><li>3. Wash 0.05-0.1ml of immobilized thrombin with 3x0.5ml of digestion buffer. Separate the gel from the buffer after each wash by centrifugation or by column. Discard buffer after each wash</li><li>4. Resuspend the washed immobilized thrombin gel in ~0.2ml of digestion buffer then add the resin to your protein sample</li><li>5. Incubate mixture in a shaking water bath for 1-2 hours at 37°C, or overnight at 4°C, with rapid agitation</li><li>6. Separate the immobilized thrombin gel from the digestion mixture as noted in step 3. Retain supernatant as your thrombin-digested protein sample</li></ol>		
<b>Application Notes:</b>	Optimization of immobilized thrombin protocol is required for specific applications. Recommended reaction conditions are pH 7.0 to 9.0 at 37°C. The reaction rate will be increased by increasing the enzyme to protein substrate ratio and incubation temperature. For example, a typical digestion of 4 hours to overnight can be achieved using a ratio of 1:25 enzyme to protein substrate, while it is recommended to use 1:10 enzyme to protein substrate for accelerated thrombin digestion (30-60 minutes).		
<b>Storage &amp; Stability:</b>	Store at 2-8°C for up to 1 year.		
<b>Infectious Disease Statement:</b>	Prepared from plasma shown to be non reactive for HbsAG, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests.		

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