

## Basic Information

<b>Product Name</b>	Anti-F2 Antibody (Clone#4G13G9)	
<b>Gene Name</b>	F2	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG2b	
<b>Species Reactivity</b>	human	
<b>Tested Application</b>	WB, IHC	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E. coli-derived human Prothrombin recombinant protein (Position: Y97-R124).	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	70-100 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

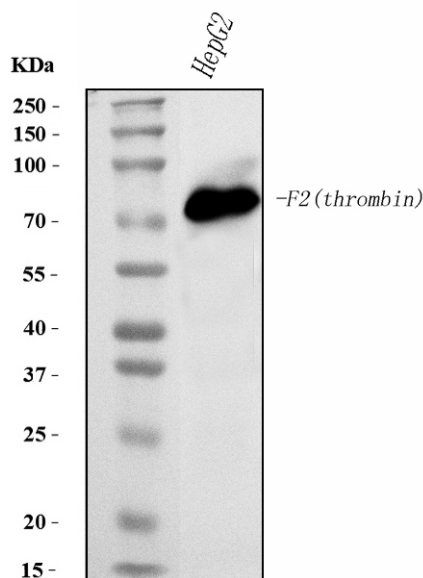
## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

F2 (Coagulation Factor II), also known as thrombin, is a serine protease that in humans is encoded by the F2 gene. This gene for human prothrombin (F2) was assigned to chromosome 11p11-q12 by analysis of a panel of somatic cell hybrid DNAs and by in situ hybridization, using both cDNA and genomic probes. The activated thrombin enzyme plays an important role in hemostasis and thrombosis: it converts fibrinogen to fibrin for blood clot formation, stimulates platelet aggregation, and activates coagulation factors V, VIII (F8), and XIII (F13A1). Thrombin also inhibits coagulation by activating protein C.

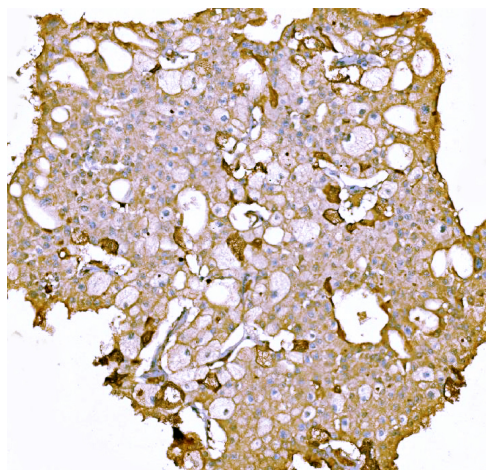
## Selected Validation Data



Western blot analysis of F2 using anti-F2 antibody (M00044-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: HepG2 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-F2 antigen affinity purified monoclonal antibody (M00044-2) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for F2 at approximately 70-100 kDa. The expected band size for F2 is at 70 kDa.



IHC analysis of F2 using anti-F2 antibody (M00044-2).

F2 was detected in a paraffin-embedded section of human liver cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-F2 Antibody (M00044-2) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.