

Anti-Fibrinogen beta chain/FGB Antibody Picoband™ (monoclonal, 6D12)

Catalog # ABO14988

Product Information

Application	WB, IHC
Primary Accession	P02675
Host	Mouse
Isotype	Mouse IgG2b
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-Fibrinogen beta chain/FGB Antibody Picoband™ (monoclonal, 6D12) . Tested in IHC, WB applications. This antibody reacts with Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2244
Other Names	Fibrinogen beta chain, Fibrinopeptide B, Fibrinogen beta chain, FGB
Calculated MW	55928
Application Details	Western blot, 0.25-0.5 µg/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5 µg/ml, Human
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Clone Names Immunogen	Clone: 6D12 A synthetic peptide corresponding to a sequence in the middle region of human FGB, different from the related mouse sequence by three amino acids, and from the related rat sequence by five amino acids.
Purification	Immunogen affinity purified.
Storage	Store at -20 °C for one year from date of receipt. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for six months. Avoid repeated freeze-thaw cycles.

Protein Information

Name	FGB
Function	Cleaved by the protease thrombin to yield monomers which, together with fibrinogen alpha (FGA) and fibrinogen gamma (FGG), polymerize to form an insoluble fibrin matrix. Fibrin has a major function in hemostasis as one of the primary components of blood clots. In addition, functions during the early stages of wound repair to stabilize the lesion and guide cell migration during re-epithelialization. Was originally thought to be essential for platelet aggregation, based on in vitro studies using anticoagulated blood. However subsequent studies have shown that it is not absolutely required for thrombus formation in vivo. Enhances expression of SELP in activated platelets. Maternal fibrinogen is essential for successful pregnancy. Fibrin deposition is also associated with infection, where it protects against IFNG-mediated hemorrhage. May also facilitate the antibacterial immune response via both innate and T-cell mediated pathways.
Cellular Location	Secreted
Tissue Location	Detected in blood plasma (at protein level).

Background

Fibrinogen beta chain, mapped to 4q31.3, is also known as FGB. The protein encoded by this gene is the beta component of fibrinogen, a blood-borne glycoprotein comprised of three pairs of nonidentical polypeptide chains. Following vascular injury, fibrinogen is cleaved by thrombin to form fibrin which is the most abundant component of blood clots. In addition, various cleavage products of fibrinogen and fibrin regulate cell adhesion and spreading, display vasoconstrictor and chemotactic activities, and are mitogens for several cell types. Mutations in this gene lead to several disorders, including afibrinogenemia, dysfibrinogenemia, hypodysfibrinogenemia and thrombotic tendency. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

Images

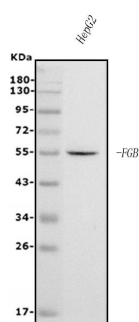


Figure 1. Western blot analysis of Fibrinogen beta chain/FGB using anti-Fibrinogen beta chain/FGB antibody (M01204-1).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human HEPG2 whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Fibrinogen beta chain/FGB antigen affinity purified monoclonal antibody (Catalog # M01204-1) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Fibrinogen beta chain/FGB at approximately 56KD. The expected band size for Fibrinogen beta chain/FGB is at 56KD.

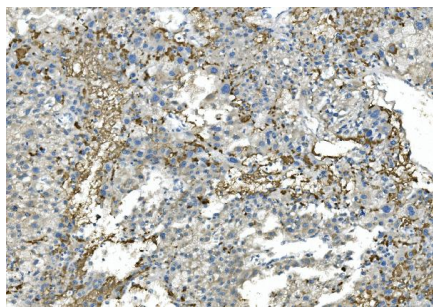


Figure 2. IHC analysis of Fibrinogen beta chain/FGB using anti-Fibrinogen beta chain/FGB antibody (M01204-1). Fibrinogen beta chain/FGB was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Fibrinogen beta chain/FGB Antibody (M01204-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.