

## BACKGROUND

Fibrinogen gamma chain, also known as FGG, is a human gene found on Chromosome 4. The protein encoded by this gene is the gamma component of fibrinogen, a blood-borne glycoprotein composed 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.<sup>1</sup> 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 dysfibrinogenemia, hypofibrinogenemia and thrombophilia.<sup>2</sup> Alternative splicing of the mRNA chain results in two transcript variants; the common  $\gamma$ A chain and the alternatively spliced  $\gamma'$  chain. Approximately 10% of the total plasma fibrinogen consists of  $\gamma$ A/ $\gamma'$  fibrinogen, with <1% consisting of  $\gamma'/\gamma'$  fibrinogen. Increased and decreased levels of  $\gamma$ A/ $\gamma'$  fibrinogen have been associated with CAD and DVT respectively.

### References:

1. Doolittle, R.F. et al: Annu. Rev. Biochem. 53: 195-229, 1984
2. Scott, E.M. et al: Arterioscler. Thromb. Vasc. Biol. 24: 1558-66, 2005

## TECHNICAL INFORMATION

### Source:

FGG Antibody is a mouse monoclonal antibody raised against recombinant human FGG fragments expressed in *E. coli*.

### Specificity and Sensitivity:

This antibody detects FGG proteins in various cell lysate.

**Storage Buffer:** PBS and 30% glycerol

### Storage:

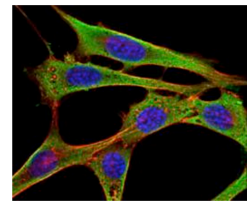
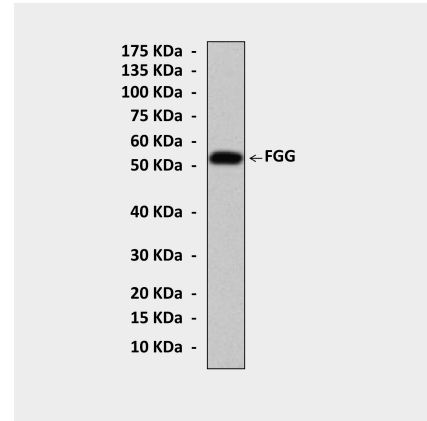
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

## APPLICATIONS

| Application:   | *Dilution: |
|----------------|------------|
| WB             | 1:1000     |
| IP             | 1:50       |
| IHC (Paraffin) | n/d        |
| ICC            | 1:50-200   |
| FACS           | n/d        |

*\*Optimal dilutions must be determined by end user.*

## QUALITY CONTROL DATA



**Top:** Western blot detection of FGG proteins in human plasma sample using FGG Antibody. **Bottom:** This antibody stains NIH3T3 cells in confocal immunofluorescent testing (FGG antibody: Green; Actin filaments: Red; DRAQ5 DNA Dye: Blue).

