

Plasmin is a kind of serine protease. when free from inhibitors, it digests fibrin /fibrinogen. The Products generated from fibrin /fibrinogen decomposition by plasmin are collectively referred to as FDP. FDP is a mixture of peptide fragment, such as X-fragment, Y-fragment, D-fragment, D-Dimer. Their molecular weights depend on the extension of the digestion.

FDP are present in clotting and fibrinolysis activity. Measurement of FDP products may be useful in diagnosing clinical coagulation. In particular, disseminated intravascular coagulation syndrome (DIC), which is known to develop due to severe hyperfibrinolysis or hypercoagulation, is diagnosed and followed-up by measuring the FDP level as one of essential indices.

Anti-Human FDP Monoclonal Antibodies

Two latest anti-FDP monoclonal antibodies have been developed by CUSAg. On the LETIA, multiple clinical samples have been respectively tested by self-made anti-FDP antibody and high-quality kit, the results had good correlation between them . This product can be used for IVD assay development.

PROPERTIES	SPECIFICATION
Target species	Human
Host animal	Mice Balb/c
Cell line used for fusion	Sp2/0
Immunogen	Human FDP
Purification method, purity	Protein G affinity chromatography, >90%(SDS-PAGE)
Presentation	MAb solution in NaCl with 15 mM NaN ₃ (pH 7.2)
Application	ELISA, LETIA and other possible application
Catalog Number	CSB-DA444HmN① CSB-DA444HmN②

Note: Product contains sodium azide as a preservative. Although the amount of sodium azide is very small, appropriate care must be taken when handling this product.

FDP
FDP

FDP

1 Calibration Curve

The human FDP reacts with the anti-human FDP antibody-coated latex, resulting in agglutination and increase in turbidity. Turbidity changes are then measured by using a spectrometer to quantitatively measure the FDP concentration in the sample. The linear relationship is shown in Figure 1. There is significant linear correlation between the FDP concentration and absorbance.

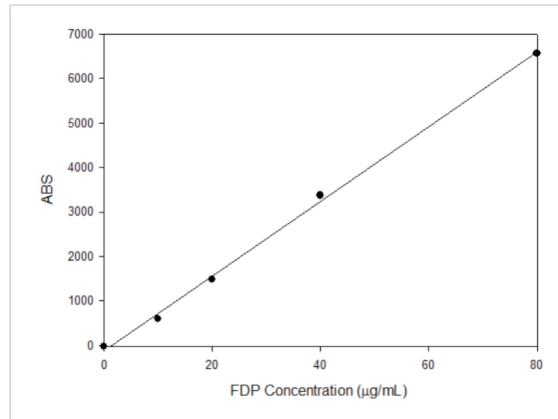


Fig.1 Calibration curve for FDP on CUSAg LETIA platform

2 Clinical analysis

An amount of samples from donors (n=54) were respectively detected by the high-quality kit and FDP LETIA. The results revealed good correlation between FDP between CUSAg FDP LETIA assays and other comparison kits, and the sensitivity reached to 1 µg/mL.

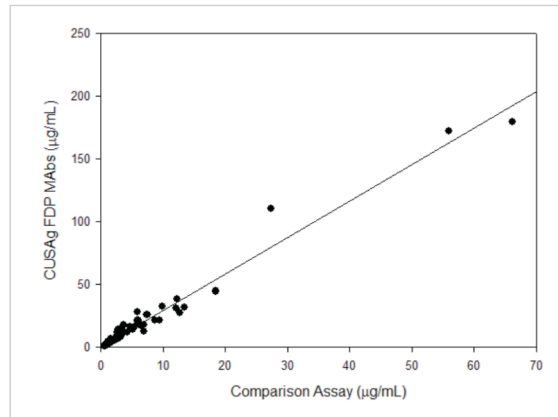


Fig.2 Comparison between FDP LETIA and diagnostic kit

References

- 1.Imoto K, Yasumuro Y, Taki M, etal. Clinical significance of a new fibrinogen/fibrin degradation products(FDP) test using plasma samples for the diagnosis of fibrinogenolysis and fibrinolysis [J]. 2001 Mar; 49(3):283-9.
- 2.Sato N, Takahashi H, Nikuni K,etal. Persistent discrepancy between FDP and D-dimer in a patient with acute leukemia [J]. 1995 Mar; 36(3):212-7.
- 3.Saito M, Asakura H, Jokaji H, etal. Role of D dimer in patients with elevated fibrinogen degradation products in serum: further study in chronic myelogenous leukemia [J].1990; 84(3):149-55.