Human Fibrinogen (PAD2 Citrullinated)
Item No. 18473

Overview and Properties

Source: Fibrinogen, purified from human plasma that has been shown by certified tests to be negative for HBsAg and for antibodies to HIV and HCV. Citrullinated with human recombinant PAD2.

Uncitrullinated Fibrinogen
Molecular Weight: α chain isoform 1 (95 kDa), α chain isoform 2 (69.8 kDa), β chain (55.9 kDa), and isoform γ-B chain (51.5 kDa)

Storage: -80°C (as supplied); avoid freeze/thaw cycles by aliquoting the protein after resuspension

Stability: ≥2 years
Purity: Homogeneous by SDS-PAGE. Clottable proteins: ≥95%

Supplied in: A lyophilized powder. Upon rehydration with 1 ml of water the product contains 50 mM Tris-HCl, pH 7.4, 150 mM sodium chloride.

Reconstitution Instructions: For optimal recovery, the fibrinogen vial and ultrapure water should be pre-warmed to 37°C. Slowly add warmed water dropwise to reconstitute, as to not mix or agitate. Incubate at 37°C without agitation for 30 minutes. It is normal for the final solution to appear hazy. Do not store on ice, as precipitation may occur. To maximize recovery the final concentration should be no greater than 1 mg/ml in water.

This product has a propensity to clot, therefore extra care must be taken when following the recommended reconstitution protocol outlined above. Recovery amounts may vary

Image

Lane 1: MW Markers
Lane 2: Human Fibrinogen (5 µg)
Lane 3: Human Fibrinogen (PAD2 Citrullinated) (5 µg)
Description

Fibrinogen is a plasma clotting factor composed of three different polypeptide chains (α, β and γ). Under chronic inflammatory conditions, fibrinogen can be acted upon by the peptidylarginine deiminases enzymes (PAD2 and PAD4), converting specific arginine residues to citrulline. Patients with rheumatoid arthritis (RA) produce antibodies that bind citrullinated human fibrinogen. The citrullinated fibrinogen and reactive antibodies form immune complexes in RA patients, and these immune complexes can stimulate macrophages. Immunizing certain strains of mice with citrullinated human fibrinogen can induce the production of anti-citrullinated human fibrinogen antibodies and the development of arthritis that shares many pathophysiological features of the human disease.

References