

Anti-Fibrinogen Affibody[®] Molecule, Unconjugated

BACKGROUND

Fibrinogen is a globular and fibrous plasma protein of 340 kDa. It is essential for platelet aggregation and platelet plug formation (clotting) at the site of damage. Fibrinogen is a dimeric protein composed of three pairs of non-identical polypeptide chains held together by disulfide bonds. The polypeptide chains that are designated as the alpha, beta and gamma chains are 63, 56 and 47 kDa, respectively. Fibrinogen is synthesized exclusively in the liver by hepatic parenchymal cells and the level in circulation is maintained at 2.5-3.2 mg/ml. It belongs to the family of acute phase proteins and the levels rises up to seven-fold in response to trauma or inflammation. Individuals with hypofibrinogenemia may have a predisposition for bleeding whereas a complete absence of fibrinogen usually is fatal.

The Anti-Fibrinogen Affibody[®] molecule was selected against human fibrinogen. Cross reactivity with other species has not been tested. The Anti-Fibrinogen Affibody[®] molecule works very well for purification and depletion of fibrinogen from plasma. The Anti-Fibrinogen Affibody[®] molecule is modified with a unique C-terminal cysteine for directed single-point chemical modification, facilitating coupling to matrices.

PRODUCT INFORMATION

Product name: Anti-Fibrinogen Affibody[®] molecule, unconjugated

Catalog number:

500 µg: 10.1278.01.0005

5 mg: 10.1278.01.0050

Source: Recombinant protein produced in *E. coli*.

Specificity: Anti-Fibrinogen Affibody[®] molecule binds to human fibrinogen. Cross reactivity with other species has not been tested.

MW: 14.0 kDa

Theoretical pI: 5.3

Extinction coefficient: 1 Abs₂₈₀ = 0.61 mg/ml

Purity: >98% as determined by SDS-PAGE and RP-HPLC analysis.

Tested applications: Affinity Chromatography.

Conjugation: The Affibody[®] molecule contains a unique C-terminal cysteine ideal for directed chemical modifications. However, tail-to-tail dimers are spontaneously generated via a disulfide bridge between the C-terminal cysteines. Prior to coupling via the C-terminal cysteine, the Affibody[®] molecule needs to be reduced to expose the reactive cysteine residue. Recommended reducing condition is 20 mM DTT at a pH above 7.5 and incubation at room temperature for 2 hours. Remove excess DTT by passage through a desalting column, not by dialysis.

Form: Lyophilized protein. Lyophilized from 10 mM NH₄HCO₃.

Storage: +4°C is recommended for lyophilized protein. For reconstituted protein in physiological buffer, short-term storage at +4°C is recommended. For long-term storage, the protein solution should first be aliquoted and stored frozen at -20°C.

Shipping: At ambient temperature.

Stability: There is no decrease in performance of the reconstituted Affibody[®] molecule (1 mg/ml in PBS) after 10 repeated freeze and thaw cycles or after storage for 2 weeks in room temperature.

Product support: www.affibody.com/shop
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LIMITATIONS

Warranty: Affibody[®] products are warranted to meet stated product specifications and to confirm to label descriptions when used and stored properly. Unless otherwise stated, this warranty is limited to one year from date of sales for products used, handled and stored according to Affibody AB's instructions. Affibody AB's sole liability is limited to replacement of the product or refund of the purchase price. Affibody[®] products are supplied for research use only. They are not intended for medicinal, diagnostic or therapeutic use. Affibody[®] products may not be resold, modified for resale or used to manufacture commercial products without prior written approval from Affibody AB.

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Rev 060503