PRODUCT SHEET

Anti-Insulin Affibody® Molecule, Unconjugated

Background

The 5.7 kDa polypeptide hormone insulin is structured as two polypeptide chains, the 21 amino acid A chain and the 30 amino acid B chain, linked by two disulphide bonds. Insulin is synthesized in the beta cells of the islets of Langerhans in the pancreas as a prohormone; proinsulin that is later transformed by proteolytic action into the active hormone. Insulin excerts multiple actions throughout the body to regulate the energy metabolism. Its anabolics action includes build-up and storage of glycogen and fat.

The Anti-Insulin Affibody® molecule was selected against recombinant human insulin (chain A and B). The Anti-Insulin Affibody® molecule is excellent for immunohistochemical staining of frozen and paraffin embedded tissue sections and an ideal affinity ligand for chromatography applications. The molecule is modified with a unique C-terminal cysteine for directed single-point chemical modification, facilitating labeling with fluorescent dyes, biotin or coupling to matrices.

Product information

Product name: Anti-Insulin Affibody® molecule, Unconjugated.
Catalog number:
1 mg: 10.0814.01.0010
5 mg: 10.0814.01.0050
Source: Recombinant protein produced in *E. coli.*
Specificity: Anti-Insulin Affibody® molecule binds to human, mouse and rat insulin.
MW: 14.0 kDa
Theroetical pI: 5.3
Purity: >98% as determined by SDS-PAGE (Coomassie blue staining) and RP-HPLC analysis.
Tested applications: Affinity chromatography, immunohistochemical staining of frozen and paraffin embedded tissue sections.
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 be aliquoted and then stored 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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