abcam

Product datasheet

Anti-IgG Affibody® Molecule (Biotin) ab31901

画像数 3

製品の概要

製品名	Anti-IgG Affibody® Molecule (Biotin)
標識	Biotin
種交差性	**交差種:** Mouse, Rabbit, Human, Rhesus monkey
免疫原	-
特記事項	ab31901 is a recombinant protein produced in E. coli. **What are Affibody Molecules?** *Affibody® affinity ligands are small, simple proteins composed of a three-helix bundle based on the scaffold of one of the IgG-binding domains of Protein A. Protein A is a surface protein from the bacterium Staphylococcus aureus. This scaffold has excellent features as an affinity ligand and can be designed to bind with high affinity to any given target protein. The domain consists of 58 amino acids, 13 of which are randomized to generate Affibody® libraries with a large number of ligand variants. Thus, the libraries consist of a multitude of protein ligands with an identical backbone and variable surface- binding properties. The current Affibody® libraries contains billions of variants. In function, Affibody® molecules mimic antibodies, nature's own binders to an infinite number of antigens. Compared to antibodies, the most striking dissimilarity of Affibody® molecules is the small size. Affibody® molecules have a molecular weight of 14 kDa, compared to the molecular weight of antibodies, which is 150 kDa. In spite of its small size, the binding site of Affibody® molecules is similar to that of an antibody. The advantages of Affibody® molecules over antibodies are · their small size · the simple structure of the molecules · its robust physical properties · its ability to fold correctly intracellularly · the fast and cost-efficient production in bacteria · the possibility to produce Affibody® molecules through chemical synthesis · the possibility to couple Affibody® molecules in multimeric constructs*

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
バッファー	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 0.328% Sodium phosphate, 0.87% Sodium chloride
特記事項(精製)	ab31901 is >98% pure, as determined by RP-HPLC analysis.

Affibody® molecule 備考

What are Affibody Molecules?

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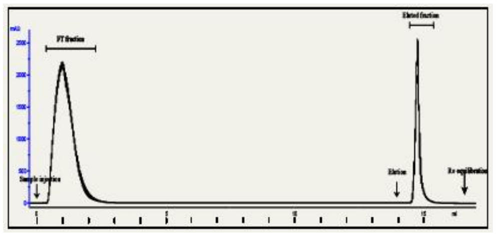
アプリケーション

Our Abpromise guarantee covers the use of **ab31901** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
AP		Use at an assay dependent dilution. THIS AFFIBODY® MOLECULE REQUIRES CONJUGATION TO A SUITABLE LABEL BEFORE USE. PLEASE REFER TO THE "PROTOCOLS" SECTION.

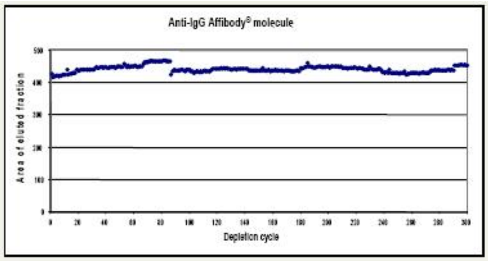
画像



- Anti-IgG Affibody® Molecule (Biotin) (ab31901)

Overlay chromatograms of repeated affinity removal of IgG from serum are shown. The chromatograms represent run number 1, 50 and 300 after consecutive injections of 700 ul of five times diluted human serum on 0.37 ml SulfoLink® Coupling Gel with immobilized Anti-IgG Affibody® molecule. The peak area of eluted fraction after each run is plotted in the image below. The identical chromatograms and consistent peak areas of eluted fractions prove that the depletion procedure can be reproducibly repeated at least 300 times without loss of binding capacity. SDS-PAGE analysis of flow-through fractions and eluted fractions shown in the third image demonstrate that the high specificity of the Anti-IgG Affibody® molecule is maintained through all the 300 consecutive injections.

The capacity of this coupling gel allows for depletion of IgG from 1900 ul of five times diluted human serum per ml gel, corresponding to 380 ul of undiluted human serum per ml gel.



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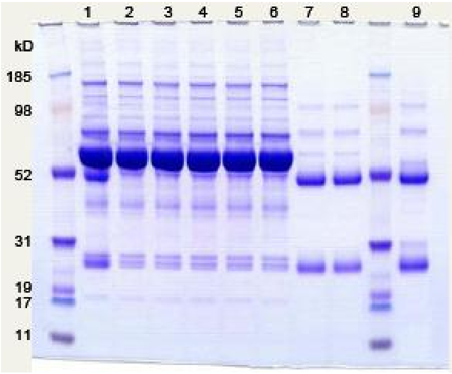
Peak area of the eluted fraction after each run of affinity removal. The consistent peak area prove that the depletion procedure can be reproducibly repeated at least 300 times without loss of binding capacity.



- Anti-IgG Affibody® Molecule (Biotin) (ab31901)

SDS-PAGE analysis of flow-through fractions (FT) and eluted fractions after repeated affinity removal of IgG from human serum.

Lane 1: Untreated 5x diluted serum sample;

Lane 2: FT run 1;

Lane 3: FT run 75;

Lane 4: FT run 150;

Lane 5: FT run 225;

Lane 6: FT run 300;

Lane 7: eluate run 1;

Lane 8: eluate run 300;

Lane 9: IgG standard.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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