abcam

Product datasheet

Anti-IgM Affibody® Molecule ab36088

2 References 画像数 1

製品の概要

製品名	Anti-IgM Affibody® Molecule
アプリケーション	**適用あり:** ELISA
種交差性	**交差種:** Human
免疫原	Other Immunogen Type. Proteins corresponding to IgM and IgM-Fc
特記事項	This product is a recombinant protein produced in E.coli.

What are Affibody Molecules?

Affibody® affinity ligands are unique research reagents, produced using innovative protein-engineering technologies. They 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. In function, Affibody® Molecules mimic monoclonal antibodies. Compared to antibodies, the most striking dissimilarity of Affibody® Molecules is the small size. Affibody® Molecules have a molecular weight of 6kDa, compared to the molecular weight of antibodies, which is 150kDa. In spite of its small size, the binding site of Affibody® Molecules is similar to that of an antibody. The advantages of Affibody® Molcules over antibodies are: -their small size -the simple structure of the molecules -its robust physical properties; able to withstand a broad range of analytical conditions, including extreme pH and elevated temperature -its ability to fold correctly intracellularly -the fast and cost effective production in bacteria -the potential to couple Affibody® Molecules in multimeric constructs Affibody® Molecules have highly competitive properties for applications within affinity purification, sample preparation, protein detection and in vitro diagnostics.

This Anti-Fibrinogen Affibody® Molecule is modified with a unique C-terminal cysteine for directed single-point chemical modification, facilitating coupling to matrices. However, tail-to-tail dimers are spontaneously generated via a disulphide bridge between the C-terminal cysteines. Prior to coupling via the C-terminal the Affibody® Molecule needs to be reduced to expose the reactive cysteine residue. Recommended reducing condition is 20mM 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.

THIS AFFIBODY® MOLECULE REQUIRES CONJUGATION TO A SUITABLE LABEL BEFORE

USE. PLEASE REFER TO THE "PROTOCOLS" LINK BELOW.

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). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
バッファー	pH: 7.40 Constituent: PBS
特記事項（精製）	The purity of this product is >98% as determined by SDS-PAGE and RP-HPLC analysis.
関連性	IgM normally constitutes about 10% of serum immunoglobulins. IgM antibody is prominent in early immune responses to most antigens and is largely confined to plasma due to it's large size. Monomeric IgM is expressed as a membrane bound antibody on the surface of B cells and as a pentamer when secreted by plasma cells. Due to it's high valency IgM is more efficient than other isotypes is binding antigens with repeating epitopes (virus particles and red blood cells) and is more efficient than IgG in activiating the complement pathway. The gene for the mu constant region contains four domains separated by short intervening sequences. IgM measurement yields information about the body's immediate resistance and response to infection as well as information related to specific diseases. Decreased levels are associated with immune deficiency states, hereditary deficiencies, and myeloma. Increased levels can be associated with Waldenstrom's macroglobulinemia, chronic infection and hepatocellular disease.
細胞内局在	Cell Membrane and Secreted

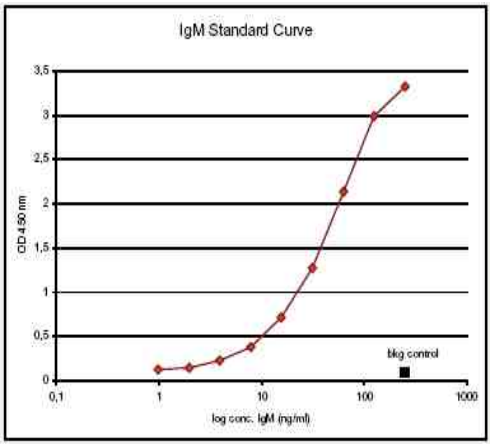
アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab36088の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
AP		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.

画像



ELISA - Anti-IgM Affibody® Molecule (ab36088)

Results quantitative ELISA

The Anti-IgM Affibody® molecule can be used as capture reagent in a sandwich ELISA in combination with a mouse anti- IgM antibody as the detection reagent. Titration of IgM gives a sigmoid curve with a sensitivity of 2.0 ng IgM/ml (defined as two times background value).

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