

Anti-HSA Affibody® Molecule (Biotin) ab31898

Overview

Product name	Anti-HSA Affibody® Molecule (Biotin)
Conjugation	Biotin
Tested applications	Suitable for: ELISA
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	The details of the immunogen for this antibody are not available.
General notes	This product 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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 0.328% Sodium phosphate, 0.87% Sodium chloride

Purification notes

ab31898 is >98% pure, as determined by RP-HPLC analysis.

Affibody® molecule notes**What are Affibody Molecules?**

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Function

Serum albumin, the main protein of plasma, has a good binding capacity for water, Ca(2+), Na(+), K(+), fatty acids, hormones, bilirubin and drugs. Its main function is the regulation of the colloidal osmotic pressure of blood. Major zinc transporter in plasma, typically binds about 80% of all plasma zinc.

Tissue specificity

Plasma.

Involvement in disease

Defects in ALB are a cause of familial dysalbuminemic hyperthyroxinemia (FDH) [MIM:103600]. FDH is a form of euthyroid hyperthyroxinemia that is due to increased affinity of ALB for T(4). It is the most common cause of inherited euthyroid hyperthyroxinemia in Caucasian population.

Sequence similarities

Belongs to the ALB/AFP/VDB family.
Contains 3 albumin domains.

Post-translational modifications

Kenitra variant is partially O-glycosylated at Thr-620. It has two new disulfide bonds Cys-600 to Cys-602 and Cys-601 to Cys-606.
Glycated in diabetic patients.
Phosphorylation sites are present in the extracellular medium.
Acetylated on Lys-223 by acetylsalicylic acid.

Cellular localization

Secreted.

Applications**The Abpromise guarantee**

Our **Abpromise guarantee** covers the use of ab31898 in the following tested applications.

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

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration. This product can be used as a capture reagent or a detection reagent in ELISA.
AP		Use at an assay dependent concentration.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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