

## Anti-IgG Affibody<sup>®</sup> Molecule, Unconjugated

### BACKGROUND

Immunoglobulin G (IgG), is one of the most abundant protein in human serum with normal levels between 8-17 mg/ml in adult blood. IgG is important for our defence against microorganisms and the molecules are produced by B-lymphocytes as a part of our adaptive immune response. The IgG molecule has two separate functions; to bind to the pathogen that elicited the response and to recruit other cells and molecules to destroy the antigen. The variability of the IgG pool is generated by somatic recombination and the number of specificities in an individual at a given time point is estimated to be 1011 variants.

The Anti-IgG Affibody<sup>®</sup> molecule binds with high affinity to human IgG of IgG1, IgG2 and IgG4 subclasses which comprise 92-98% of total IgG in a normal individual. The Anti-IgG Affibody<sup>®</sup> molecule is well suited for affinity chromatography, depletion of IgG from human serum and can be used as a detection reagent in a variety of assays. The Anti-IgG Affibody<sup>®</sup> 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-IgG Affibody<sup>®</sup> molecule, Unconjugated.

**Catalog number:**

1 mg: 10.0623.01.0010

5 mg: 10.0623.01.0050

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

**Specificity:** Anti-IgG Affibody<sup>®</sup> molecule binds to the Fc part of IgG from several species; human; mouse; rabbit and monkey (Rhesus) with similar binding preferences as Protein A in terms of subclass specificities.

**MW:** 14.1 kDa

**Theoretical pI:** 5.0

**Extinction coefficient:** 1 Abs<sub>280</sub> = 5.24 mg/ml

**Purity:** >98% as determined by SDS-PAGE

(Coomassie blue staining) and RP-HPLC analyses.

**Tested applications:** Affinity Chromatography.

**Conjugation:** The Affibody<sup>®</sup> 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<sup>®</sup> 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 NH<sub>4</sub>HCO<sub>3</sub>.

**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<sup>®</sup> 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](http://www.affibody.com/shop)  
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### LIMITATIONS

Warranty: Affibody<sup>®</sup> 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<sup>®</sup> products are supplied for research use only. They are not intended for medicinal, diagnostic or therapeutic use. Affibody<sup>®</sup> 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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