PRODUCT SHEET

# Anti-EGFR Affibody® Molecule, Unconjugated

## Background

The Epidermal Growth Factor Receptor (EGFR, ErbB) is a cell surface glycoprotein of approximately 135 kDa (unglycosylated). There are several alternatively spliced forms of EGFR including a secreted soluble form. The EFGR belongs to the family tyrosine kinase receptors which are characterized by an extracellular ligand-binding domain, a single transmembrane and an intracellular domain responsible for transducing the signal. The receptor dimerizes upon binding to EGFR and the transduced signal stimulates cell growth and differentiation. The EGFR is over expressed or mutated in many types of cancers and the receptor as well as the down stream signaling molecules are subjects to several cancer therapeutic interventions.

The Anti-EGFR Affibody® molecule is a specific affinity ligand selected against the extra cellular domain of EGFR. The molecule can advantageously be used for fluorescence and immunohistochemical studies of EGFR-expression on cells and frozen tissue sections. Staining of paraffin embedded tissues is not recommended. The Anti-EGFR Affibody® 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-EGFR Affibody® molecule, unconjugated.
**Catalog number:**
100 µg: 10.1886.01.0001
500 µg: 10.1886.01.0005
**Source:** Recombinant protein produced in *E. coli.*
**Specificity:** Anti-EGFR Affibody® molecule binds to the extracellular domain of human epidermal growth factor receptor (EGFR, ErbB). Cross reactivity with other species has not been tested.
**MW:** 13.9 kDa
**Theoretical pI:** 4.4
**Purity:** >98% as determined by SDS-PAGE (Coomassie blue staining) and RP-HPLC analysis.
**Tested applications:** Fluorescence and immunohistochemical staining of cells and frozen tissue sections, flow cytometry.
**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 $NH_4HCO_3$.
**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 at room temperature.
**Product support:** www.affibody.com/shop
Affibody AB, P.O. Box 20137, SE-161 02 Bromma, Sweden. Phone: +46-8-598 838 00, Fax: +46-8-598 838 01. E-mail: biotechnology@affibody.com.


AFFIBODY AB, PO Box 20137, SE-161 02 Bromma, Sweden. Phone: +46-8-598 838 00, Fax: +46-8-598 838 01, E-mail: biotechnology@affibody.com, Web: www.affibody.com/shop.
Rev 090629