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Anti-HER2 Affibody® Imaging Agent

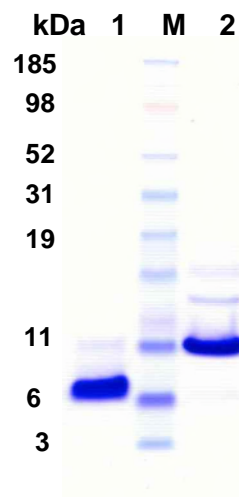
Catalog Number:	10.1861.01.0001
Batch Number:	070419A-PB00665
Specificity:	This Affibody® molecule binds to the extracellular domain of <u>h</u> uman <u>e</u> pidermal growth factor <u>r</u> eceptor 2 (HER2). Cross reactivity with other species has not been tested.
Feature:	The Anti-HER2 Affibody® Imaging Agent is modified with a unique C-terminal cysteine for directed single-point chemical modification, facilitating labeling to thiol reactive reagents such as various fluorescent dyes. The Anti-HER2 Affibody® Imaging agent is a highly specific affinity ligand selected against the extracellular domain of HER2. It targets HER2-expressing tumors in vivo in SKOV-3 cells in a xenograft model (see Orlova et al., Cancer Res. 2006 Apr 15;66(8):4339-48). The Anti-HER2 Affibody® Imaging Agent is a [V1A][D2E] variant of Z00477.
Mw:	6.9 kDa
Theoretical pl:	8.5
Concentration conversions:	1 Abs ₂₈₀ = 0.83 mg/ml 1 mg/ml = 1.21 Abs ₂₈₀ units Molar extinction coefficient: 8400 M ⁻¹ cm ⁻¹
Purity:	>95% as determined by SDS-PAGE and RP-HPLC analysis.
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 at least 1 hour. If problems occur with solubilization of the lyophilized product, longer incubation time, i.e. overnight, is recommended. Remove excess DTT by passage through a desalting column, not by dialysis.

Warranty: Affibody® products are warranted to meet stated product specifications and to conform 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 of the product is limited to replacement of the product or refund of the purchase price. Affibody® products are supplied for research use only. They are not intended for medicinal, diagnostic or therapeutic use. Affibody® products may not be resold, modified for resale or used to manufacture commercial products without prior written approval from Affibody AB.

Form: Lyophilized protein. Lyophilized from 10 mM NH₄HCO₃.

Amount: 100 µg

SDS-PAGE Analysis: SDS-PAGE analysis of purified Anti-HER2 Affibody® Imaging Agent at reduced condition (lane 1) and non-reduced condition (lane 2) on NuPage 4-12 % Bis-Tris gel, with MultiMark MCS (Invitrogen). Coomassie blue was used for staining.



Endotoxin level: Endotoxin level was below detection limit (LAL test) <0.231 EU/mg.

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

Storage: +4 °C is recommended for lyophilized protein. For reconstituted protein in physiological buffer, short-term storage at +4 °C is recommended. For longer term storage the protein solution should first be aliquoted and stored frozen at -20 °C.

Solubilization: If complete solubilization of the lyophilized product is not achieved in a physiological buffer, reducing agent, i.e. DTT, can be added to a final concentration of 20 mM. Incubation is performed at room temperature on a shaker plate, and the time needed for complete solubilization may be up to 12 hours.