

# SibTech, Inc.

## Inactivated scVEGF-PEG-DOTA

Product #SBT335-IN

Inactivated scVEGF-PEG-DOTA is functionally inactive derivative of scVEGF-PEG-DOTA (SibTech product #SBT335). It can be radiolabeled with imaging and therapeutic radionuclides through the same procedure as scVEGF-PEG-DOTA.

**Inactivation:** For inactivation,  $\epsilon$ -amino groups of 12-14 lysine residues in a scVEGF-PEG-DOTA are derivatized with NHS-biotin. The resulting protein is purified by gel-filtration and lyophilized from 0.1 M HEPES pH 7.0.

**Functional activity:** The loss of VEGF functional activity is tested *in vitro* using 293/KDR human transformed embryonic kidney cells expressing  $2.5 \times 10^6$  VEGFR-2/cell (SibTech product #SBT021.293). Inactivated scVEGF-PEG-DOTA displays no VEGF activity.

**Intended field of use:** Radiolabeled inactivated scVEGF-PEG-DOTA can be used as a control protein for non-specific (non-receptor mediated) binding/uptake of radiolabeled scVEGF-PEG-DOTA.

### One vial contains 0.2 mg of lyophilized inactivated scVEGF-PEG-DOTA

**Reconstitution:** To insure full recovery, centrifuge the vial briefly before opening. Reconstitute in 0.2 ml of sterile deionized water to a final concentration of 1 mg/ml in 0.1 M HEPES pH 7.0.

**Stability:** Lyophilized inactivated scVEGF-PEG-DOTA is stable for 1 year at  $-20^{\circ}\text{C}$ . After reconstitution, it is stable for at least 6 months, if stored at  $-20^{\circ}\text{C}$  or below. Multiple thawing-freezing should be avoided.

**Safety warnings:** For research use only. Not for human use. Not recommended or intended for diagnosis in humans or animals. As all chemicals should be considered as potentially hazardous, it is advisable to wear suitable protective clothing, such as laboratory overalls, safety glasses and gloves. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes, wash immediately with water.

## References

1. Backer MV, Levashova Z, Patel V, Jehning BT, Claffey K, Blankenberg FG, Backer JM. Molecular imaging of VEGF receptors in angiogenic vasculature with single-chain VEGF driven probes. *Nature Med*, 13, 504-509, 2007
2. Backer MV, Levashova Z, Levenson R, Blankenberg FG, Backer JM. Cysteine-containing fusion tag for site-specific conjugation of therapeutic and imaging agents to targeting proteins. *Methods in Molecular Medicine. Peptide-based Drug Design*. Humana Press, New York, NY. Ed: L. Otvos. Vol. 494, p.275-94, 2008.