SibTech, Inc.

LFn-ct

Product #SBT901

LFn-ct is an engineered recombinant protein, which consists of a N-terminal 1-254 aa long non-toxic fragment of anthrax lethal factor fused to Cys-tag (ct) via a $HM(G_4S)_3$ linker. LFn-ct also has a C-terminal His-tag (6 histidines). Complete sequence of LFn-ct has 301 amino acids.

Purification: LFn-ct is expressed in bacteria, purified by a combination of metal affinity and ion-exchange chromatography and lyophilized from 20 mM ammonium bicarbonate.

Functional activity: The functional activity of LFn-ct is determined by its ability to compete with the full-length lethal factor (List Biologics) to bind to cell-associated protective antigen (List Biologics). Functional test is performed on RAW 264.1 cells (ATCC #TIB-71).

Radiolabeling with ^{99m}Tc and other applications: After treatment with equimolar amounts of DTT, thiol group in Cys-tag becomes available for direct radiolabeling with ^{99m}Tc for SPECT imaging of anthrax receptors, or for site-directed conjugation of various payloads, including fluorescent dyes and liposomes (1-3).

One vial contains 0.1 mg of essentially salt-free lyophilized LFn-ct

Reconstitution: To insure full recovery, centrifuge the vial briefly before opening. Reconstitute in 0.1 ml of sterile PBS, to a final concentration of 1 mg/ml. We do not recommend using less than 0.1 ml for reconstitution.

Stability: LFn-ct is stable for 1 year at -20^{o}C. After reconstitution, LFn-ct is stable and functionally active for at least 6 months, if stored at -20^{o}C, and for 1-2 days at 4^{o}C. 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, M. V., Patel, V., Jehning, B. T., Claffey, K., Karginov, V. A. and Backer, J.M. (2007) Inhibition of anthrax protective antigen outside and inside the cell. *Antimicrob. Agent. Chemother*. 51, 245-251.
2. Backer, M.V. Patel, V., Jehning, B., and Backer, J.M. (2006) Self-Assembled “Dock and Lock” system for linking payloads to targeting proteins. *Bioconjugate Chem*., 17, 912-919.
3. 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.

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