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(54) **HIGH THROUGHPUT ASSAYS FOR THE PROTEOLYTIC ACTIVITIES OF CLOSTRIDIAL NEUROTOXINS**

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See application file for complete search history.

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(57) **ABSTRACT**

In this application is described substrates for high-throughput assays of clostridial neurotoxin proteolytic activities. Two types of substrates are described for use in assays for the proteolytic activities of clostridial neurotoxins: (1) modified peptides or proteins that can serve as FRET substrates and (2) modified peptides or proteins that can serve as immobilized substrates. In both types a fluorescent molecules is present in the substrate, eliminating the requirement for the addition of a fluorigenic reagent. The assays described can be readily adapted for use in automated or robotic systems.

9 Claims, 3 Drawing Sheets