



中国合格评定国家认可委员会

China National Accreditation Service for Conformity Assessment

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APLAC Testing Proficiency Testing Program

Paralytic Shellfish Poison

APLAC T075

1. Objective

Paralytic shellfish poisons (PSP) are a group of at least 21 structurally related neurotoxins, produced mainly by dinoflagellates belonging to the genus *Alexandrium*. The various PSP toxins significantly differ in toxicity, with saxitoxin being one of the most acutely toxic. Mammals are very sensitive to PSP. Consumption of PSP-contaminated mussels has caused food poisoning in several countries. Because of the threat to human health, various countries have enacted regulations on the maximum permitted contents of PSP, in particular saxitoxin, in shellfish. The testing of these toxins is of great importance to international shellfish trade and protecting human health. This PT program is to evaluate the performance of laboratories for quantitative testing total PSP toxins in shellfish samples.

2. Organization and responsibilities

This proficiency testing program will be organized by China National Accreditation Service for Conformity Assessment (CNAS). CNAS is responsible for proposing this program for approval by the APLAC Proficiency Testing Committee, inviting participants, circulating the draft report and final report to participants and acting as a contact point between APLAC, participating accreditation bodies / participants and the Proficiency Testing Provider (PTP).

The accredited PTP, the Technology Center of Liaoning Entry-Exit Inspection and Quarantine Bureau (LNCIQ), is responsible for preparing, packaging and dispatching samples, performing homogeneity and stability checks, collecting test results from participating laboratories, conducting statistical analysis of data, handling participants' queries and issuing interim and final reports.

3. Selection of participants

Each accreditation body of APLAC members is invited to nominate up to a maximum of 4 laboratories from your economy to participate in this program. Each of others is invited to nominate up to a maximum of 2 laboratories to participate. Note that preference will be given to laboratories that are accredited for the proposed tests.

4. Samples

Two lyophilized mussel samples will be provided to each participating laboratory. These two samples will be at the different levels on PSP toxins. The samples will be packaged in sealed bottles.

This program involved shellfish toxins, there may be some problems on the customs clearance in some countries. We ask accreditation bodies to communicate with local customs officials as soon as possible and inform us if any necessary work we should do.

5. Homogeneity testing and stability check

Sample homogeneity and stability were checked in accordance with the procedure described in ISO Guide 35:2006 (for check before the PT round) and ISO/IEC 13528:2005 (for check after the PT round). The samples were prepared and tested by LNCIQ.

6. Tests and Methodology

The participating laboratories will be requested to analyze total PSP toxins in the lyophilized mussel samples. For each test, mouse bioassay, e.g. AOAC official method 959.08, should be used. No reference material or blank sample will be provided. The test results should be reported in the Result Sheet by the deadline.

7. Statistical Analysis of Results

The results from participating laboratories will be transformed to their logarithm, and the assigned value and standard deviation of the total PSP toxin in each sample, in log (mouse unit/g), will be determined using the participants' results. The performance of participants will be evaluated using individual z-scores calculated from logarithm of reported result for each sample, unless the method is not applicable. The criteria of z-score assessment are:

- | | | |
|-----|---------------|----------------|
| (a) | $ z \leq 2$ | Satisfactory |
| (b) | $2 < z < 3$ | Questionable |
| (c) | $ z \geq 3$ | Unsatisfactory |

Graphic shown of reported results and summary statistics would be employed to facilitate participants getting their performance smoothly.

8. Application fee

Free of charge.

9. Schedule for program

Feb-July, 2011 Advise APLAC members, EA, IAAC and other contacts for participating

By July 30, 2011 Accept nominated laboratories

By Sept 15, 2011 Dispatch samples to nominated laboratories

Oct. 15, 2011 Testing Deadline

By Nov. 15, 2011 Interim report

By Dec. 15, 2011 Draft final report

10. Contacts

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