



Asia Pacific Laboratory Accreditation Cooperation



**DETERMINATION OF CADMIUM  
AND LEAD IN HERBAL SAMPLE  
PROFICIENCY TESTING  
PROGRAMME**

**APLAC T065**

**FINAL REPORT**

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## **Summary of Results**

1. The proficiency testing programme (APLAC T065) aimed at evaluating the testing capability of participants on the quantitative analysis of cadmium and lead in a herbal sample, *Herba Desmodii Styracifolii*.
2. A total of 109 laboratories from 42 economies enrolled in the programme and 101 of them returned their results to the organizer.
3. The reference values of cadmium and lead were assigned by the HKGL using a gravimetric isotope dilution inductively coupled plasma-mass spectrometry (ID-ICP-MS) technique. The standard deviations for proficiency assessment were calculated using the Horwitz Equation<sup>8.1</sup>. z-Score is used as the numerical indicator to assess individual participant's competence relative to the others in the programme.
4. z-Scores of participants are summarized as follows:

(96 valid numeric data from participants were used in the assessment of z-score)

<b>Performance</b>	<b>Number of Participants (Percentage)</b>	
	<b>Cadmium</b>	<b>Lead</b>
$ z  \leq 2$	81 (84.4 %)	75 (78.1 %)
$2 <  z  < 3$	8 (8.3 %)	2 (2.1 %)
$ z  \geq 3$	7 (7.3 %)	19 (19.8 %)
Total:	96 (100 %)	96 (100 %)