



Dalton Pharmaceutical Services was contracted by T.A. Sciences to evaluate four commonly available commercial products for the presence of TA-65, a single molecule compound occurring in the Chinese Astragalus plant species. Dalton was also asked to evaluate T.A. Sciences' TA-65 5mg product. Dalton Pharma Services Inc has been involved in the synthesis and isolation of natural products from plant sources for many years and utilizes cutting edge technology for the analysis of these products, both in commercial formulations and the raw natural sources. The analytical laboratory has been audited and approved by Health Canada who insists on some of the most stringent requirements in the world. We have developed accurate techniques for the detection of products such as TA-65 in commercial/natural products.

The labels of these four products and T.A. Sciences' TA-65 product claim the following Astragalus root or concentrate content:

Product	A. Astragalus Root	B. Astragalus	C. Astragalus Root	D. Astragalus Root	E. TA-65, 5mg
Dosage	4 Capsules daily.	4 Capsules daily.	6 Capsules daily.	6 Capsules daily	1 Capsule daily.
Content	580mg Astragalus concentrate per capsule containing 0.025mg Astragaloside IV	1mg of Astragaloside IV per 2 capsules	800mg of Astragalus root per 2 capsules	1410mg of Astragalus root per 2 capsules.	Astragalus root extract (TA-65), 5 mg per each capsule

TA-65 is a naturally occurring substance in the Chinese Astragalus plant species. Dalton Pharmaceutical Services analyzed the commercial products by a combination of Mass Spectroscopy (MS), Liquid Chromatography/Mass Spectroscopy (LCMS) and High Pressure Liquid Chromatography-Evaporative Light Scattering Detection (HPLC-ELSD) techniques to determine the presence of TA-65 in these samples.



The analysis of these products for the presence of TA-65 yielded the following results:

Product	A. Astragalus Root	B. Astragalus	C. Astragalus Root	D. Astragalus Root	E. TA-65, 5mg
TA-65 content	0 mg (below limit of detection*)	0 mg (below limit of detection*)	0 mg (below limit of detection*)	0 mg (below limit of detection*)	5.4 mg

* Limit of detection is 1ppm.

No evidence of TA-65 was detected in the commercial products by any of the techniques used. In the case of TA Sciences 5mg product, we detected 5.4mg of the TA-65 molecule per capsule.

Martyn A Brown PhD, AQPIC
Chemistry Services Manager
Dalton Pharma Services Inc

May 23rd, 2007