

## Analysis of Chromium (III) Picolinate in Supplements by HPLC

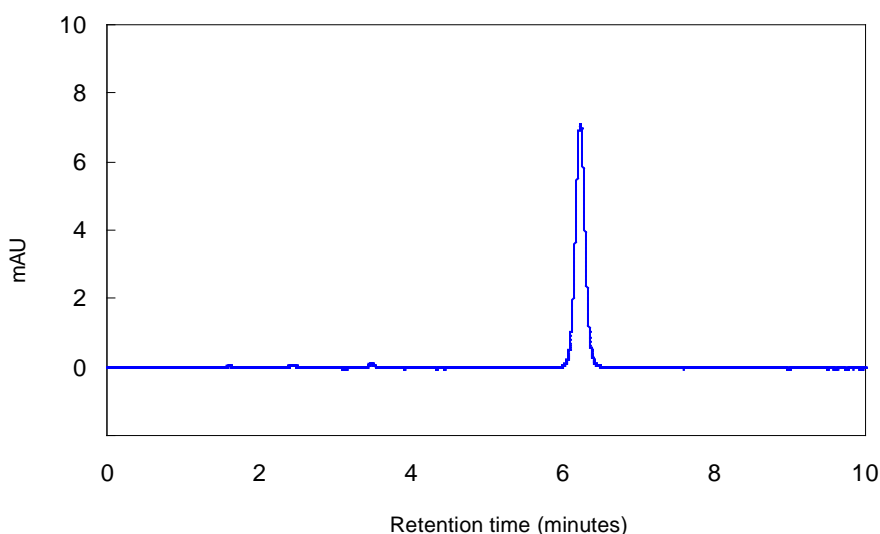
Chromium picolinate has a chelating ligand structure in which 3 picolinic acid molecules are arranged around trivalent chromium and is widely used in diet-related supplements. Many types of chromium-containing supplements are currently on the market, but most domestically produced products in Japan use chromium yeast as an ingredient, while the majority of imported products contain chromium picolinate as an ingredient. However, excessive consumption over a long period of time may cause adverse reactions such as kidney failure.

Shown here is an example of chromium picolinate in supplements analyzed by HPLC. The content in supplements could easily be determined by simple solvent extraction.

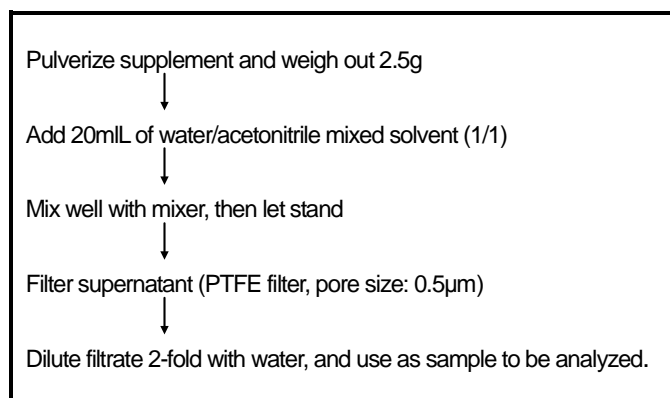
**Table 1. Analytical conditions**

Column:	<b>TSKgel ODS-100V, 5<math>\mu</math>m, 4.6mm ID x 15cm</b>
Mobile phase:	A :water B: acetonitrile A/B = 90/10
Flow rate:	1.0mL/min
Temperature:	40°C
Injection vol.:	5 $\mu$ L
Detection:	UV@264nm

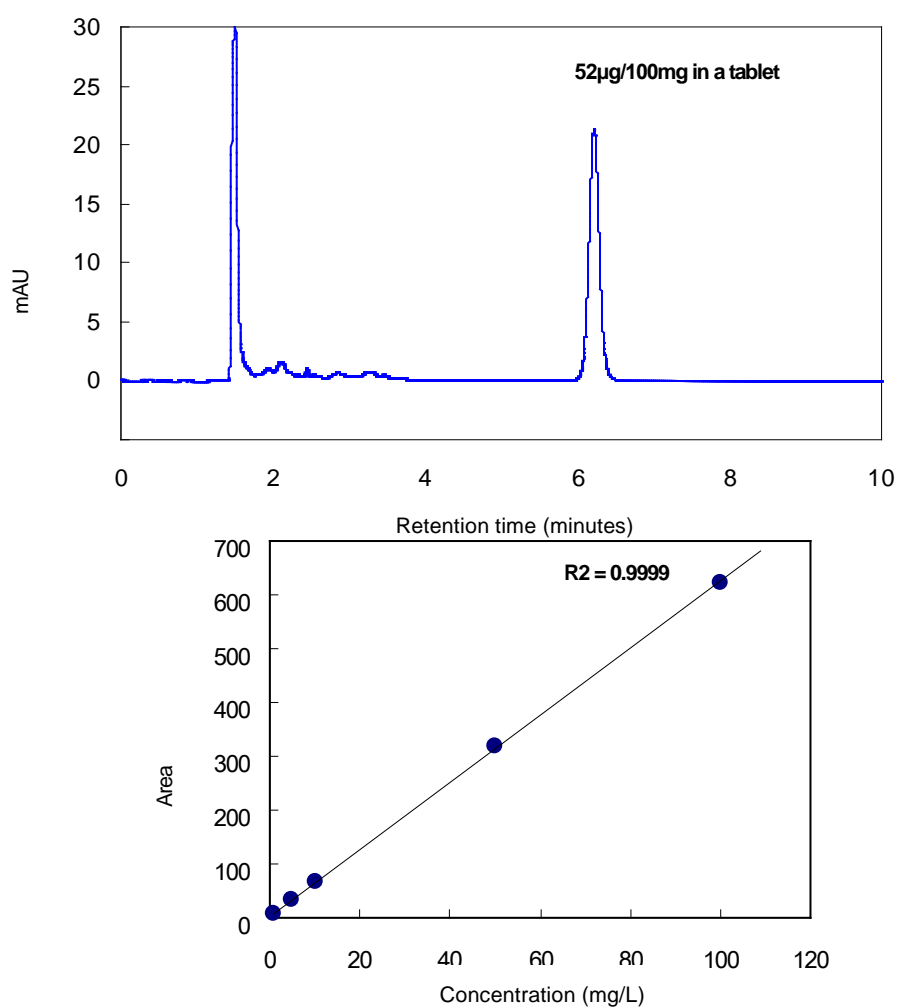
**Figure 1. Chromatogram of chromium picolinate (10mg/L)**



**Figure 2. Pretreatment of supplement**



**Figure 3. Chromatogram of supplement**





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TOSOH Bioscience LLC  
3604 Horizon Drive, Suite 100  
King of Prussia, PA 19406  
Orders & Service: (800) 366-4875  
Fax: (610) 272-3028  
[www.separations.us.tosohbioscience.com](http://www.separations.us.tosohbioscience.com)  
email: [info.tbl@tosoh.com](mailto:info.tbl@tosoh.com)