

International Calibration Standards

for HPLC Analysis of Isomerized & Reduced Isomerized α -Acids

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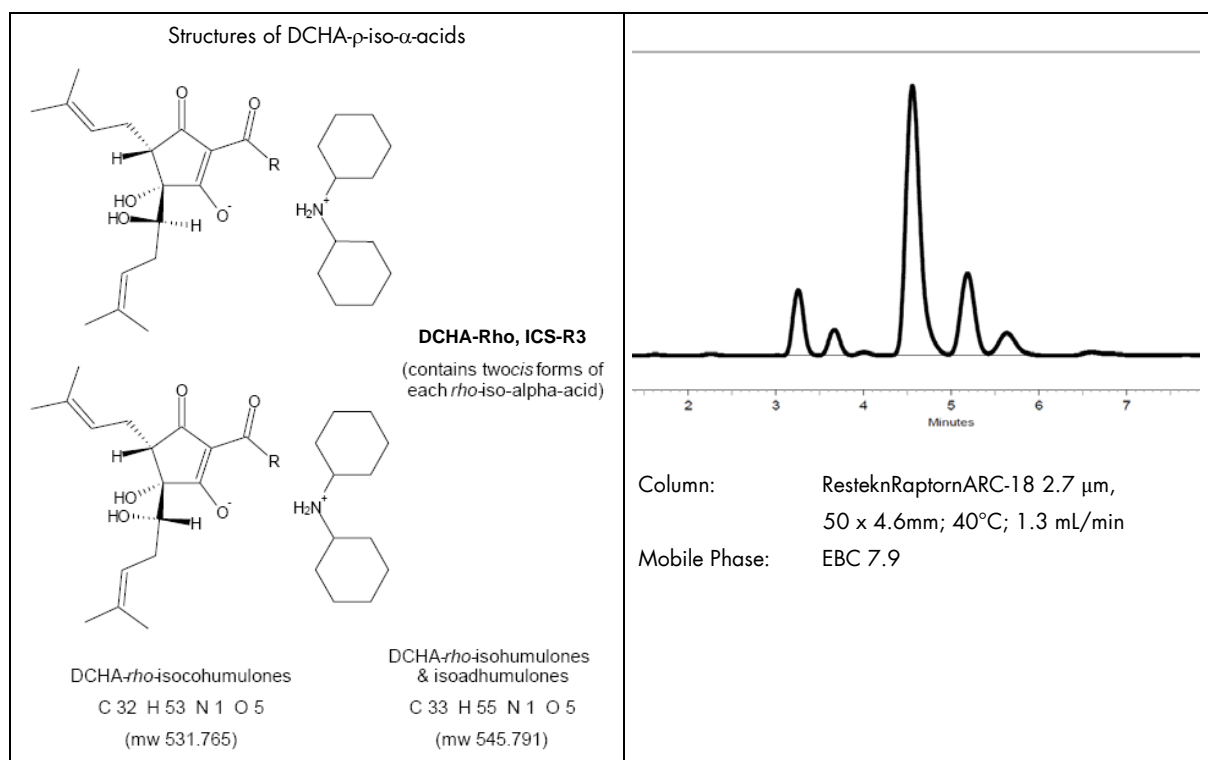
DCHA-Rho, ICS-R3

ICS-R3 is a purified preparation of the dicyclohexylamine salts of *cis*- ρ -iso- α -acids.

Total ρ -iso- α -acids: 65.0 % (w/w)

The above figure was determined by the International Subcommittee for Isomerized Hop α -Acids Standards and takes into account **only** the major forms of the ρ -iso- α -acids that are present:

- two *cis*- ρ -isocohumulones
- two *cis*- ρ -isohumulones
- two *cis*- ρ -isoadhumulones



Storage: -20 °C, gas-tight under CO₂ or N₂

Country of origin/produced: USA

Not for human consumption. Intended use is for industrial and analytical purposes.

Rev. 02/Nov 2018

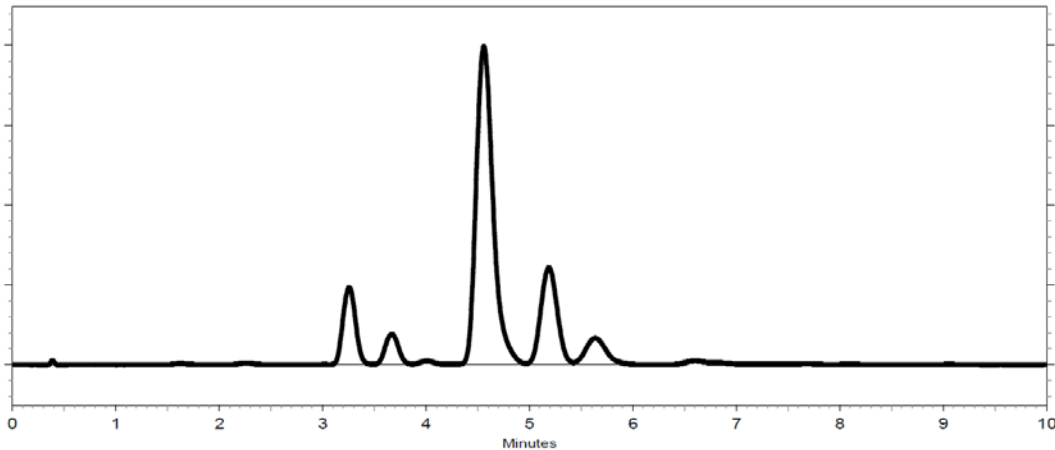
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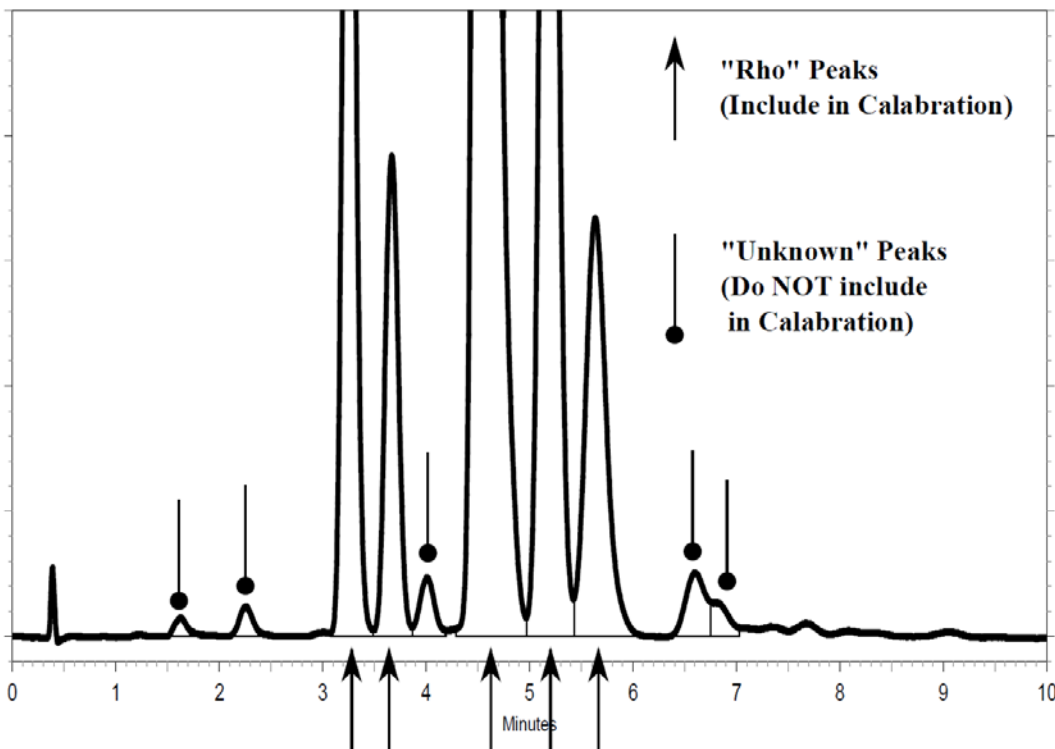
ICS-R3

Analysis by EBC 7.9



Restek Raptor ARC-18 2.7 μ m, 50 x 4.6mm; 40°C; 1.3 mL/min.

ICS-R3 (Expanded)



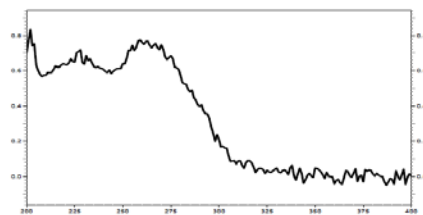
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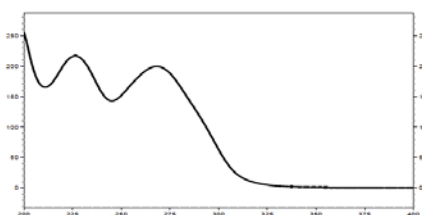
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PDA Spectra

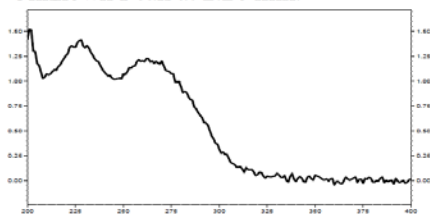
Unknown Peak at 1.62 min.



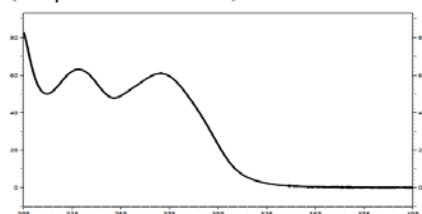
3rd Rho Peak at 4.56 min.
(cis-p-isohumulone 1)



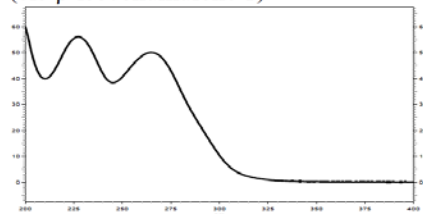
Unknown Peak at 2.26 min.



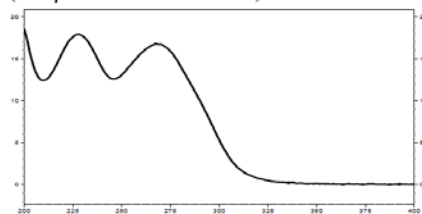
4th Rho Peak at 5.19 min.
(cis-p-isohumulone 2)



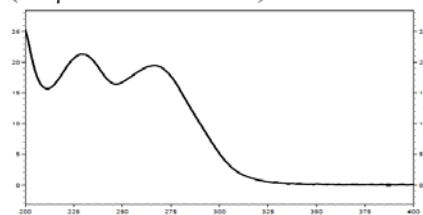
1st Rho Peak at 3.26 min.
(cis-p-isocohumulone 1)



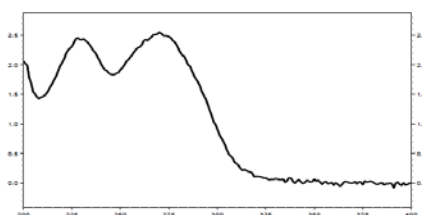
5th Rho Peak at 5.64 min.
(cis-p-isoadhumulone 1)



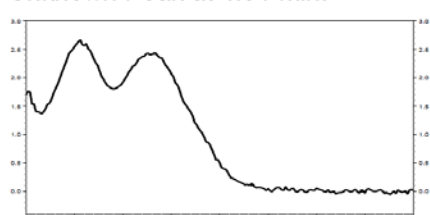
2nd Rho Peak at 3.67 min.
(cis-p-isocohumulone 2)



Unknown Peak at 6.60 min.



Unknown Peak at 4.01 min.



Unknown Peak at 6.84 min.

