

# ***HPLC of Gallotannins***

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Hydrolyzable tannins can be fractionated by HPLC to provide both qualitative information on the homogeneity of a particular preparation; estimation of molecular weight; and quantitative information on specific compounds.

Either normal phase or reversed phase HPLC can be used for hydrolyzable tannins. There are not as many methods for polymeric condensed tannins on HPLC.

## ***Detection***

Gallotannins can be detected at 254 nm if you have a fixed wavelength UV detector, or at 280 nm if you have a variable wavelength detector. More sensitivity can be obtained by detection at 220 nm, although many organic compounds absorb at low wavelengths so some selectivity is lost. It is convenient to have an integrator set up so that you can determine peak size for each peak. Using a detector set at 280 nm, we set the output at 0.1 AU full scale and inject 20 uL of tannic acid samples made up to between 100 and 500 ug/ml.

## ***Standards***

Gallic acid and methyl gallate are commercially available. Defined galloyl glucoses are not commercially available, but can be prepared from tannic acid.