
**Liquorice extracts (*Glycyrrhiza glabra* L.) —
Determination of glycyrrhizic acid
content — Method using high-performance
liquid chromatography**

*Extraits de réglisse (Glycyrrhiza glabra L.) — Détermination de la teneur en
acide glycyrrhizique — Méthode par chromatographie liquide à haute
performance*



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Liquorice extracts (*Glycyrrhiza glabra* L.) — Determination of glycyrrhizic acid content — Method using high-performance liquid chromatography

1 Scope

This International Standard describes a method for determining the glycyrrhizic acid content of liquorice extract (*Glycyrrhiza glabra* L.) by high-performance liquid chromatography.

The method is not applicable to raw or ground liquorice root.

2 Principle

The sample and standard solutions are prepared, then the glycyrrhizic acid content is determined by high-performance liquid chromatography using the method described in this International Standard.

3 Reagents

Use only reagents of recognized analytical grade, unless otherwise specified.

3.1 Water, HPLC grade.

3.2 Reference substance, monoammoniacal glycyrrhizate (GMA).

If a reference material of guaranteed purity is not available, it is recommended that the users of this International Standard come to an agreement between the interested parties on the purity of the reference substance.

3.3 Acetonitrile, HPLC grade.

3.4 Acetic acid, analytical grade.

3.5 Elution solvent (mobile phase), composed of the following:

- 38 volumes acetonitrile (3.3),
- 61 volumes water (3.1),
- 1 volume acetic acid (3.4).

Using the measuring cylinder (4.3), prepare the elution solvent as follows.

Mix 1 volume of acetic acid with 61 volumes of water, then filter the mixture through a filter for aqueous solvents (4.5).

Filter 38 volumes of acetonitrile through a filter for organic solvents (4.4).

Add the filtered acetonitrile to the filtered water/acetic acid mixture. Mix, then degas the elution solvent in the ultra-sound cell (4.8.3) or any suitable system.

Do not keep this solvent more than 48 h at ambient temperature.