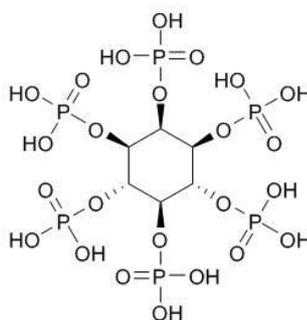


Phytic acid Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Phytic acid**Catalog No.:** CFN99792**Cas No.:** 83-86-3**Purity:** > 94%**M.F:** C₆H₁₈O₂₄P₆**M.W:** 660.04**Physical Description:** Powder**Synonyms:** Myo-inositol hexakisphosphate.

[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Agricultural research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Others.

[Source]

The herbs of *Oryza sativa*.

[Biological Activity or Inhibitors]

Phytic acid has chelating effect , it forms an iron chelate which greatly accelerates Fe²⁺-mediated oxygen reduction yet blocks iron-driven hydroxyl radical generation and suppresses lipid peroxidation; furthermore, high concentrations of phytic acid prevent browning and putrefaction of various fruits and vegetables by inhibiting polyphenol oxidase; indicate an important antioxidant function for phytate in seeds during dormancy and suggest that phytate may be a substitute for presently employed preservatives, many of which pose potential health hazards.^[1]

Phytic acid, saponins and isoflavones are trypsin inhibitors in soybeans, they are now thought to have beneficial biological effects in the diet, such as lowering blood cholesterol or preventing cancer.^[2]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[3]

Mobile phase: Acetonitrile-0.1 M HNO₃ in water=30:70;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 460 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

[1] Graf E, Empson K L, Eaton J W. *J. Biol. Chem.*, 1987, 262(24):11647-50.

[2] Anderson R L, Wolf W J. *J. Nutr.* ,1995,125(3 Suppl):581S-588S.

[3] Dost K, Tokul O. *Analytica Chimica Acta*, 2006, 558(1-2):22-7.

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