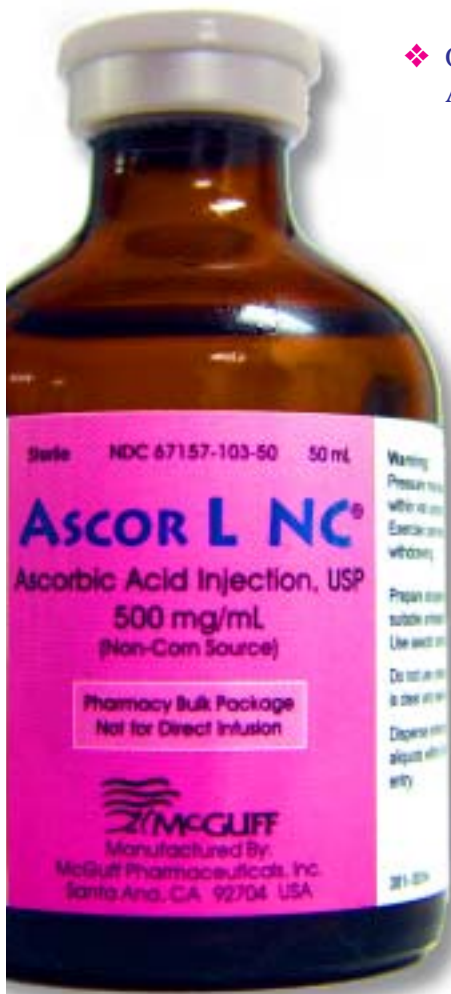


# Mission Accomplished!

## ASCOR L NC<sup>®</sup> Ascorbic Acid Injection, USP NON - CORN

McGuff, a name that is associated with the pioneers of alternative therapy, has searched the world to obtain a natural non-corn source raw material that meets or exceeds all Federal, State, USP and McGuff specifications for Ascorbic Acid Injection, USP.

- ❖ Over two years in development to provide the best available natural non-corn source of Ascorbic Acid Injection, USP
- ❖ The first and only US manufacturer of Ascorbic Acid Injection USP from a non-corn raw material
- ❖ Site-Specific Natural Isotopic Fractionation proves our Ascor L NC<sup>®</sup> raw material comes from a natural, Non Corn source
- ❖ Certificate of origin raw material; Analytical Report, raw material; Certificate of Analysis, finished product are available upon request
- ❖ Ascor L NC<sup>®</sup> is manufactured by McGuff Pharmaceuticals, Inc. a FDA registered, cGMP compliant, ISO9001:2000 certified pharmaceutical manufacturer



Available from



800 854-7220 [www.mcguff.com](http://www.mcguff.com)

And other discerning wholesalers and pharmacies



# ascor | NC<sup>®</sup>

## Ascorbic Acid Injection, USP (500 mg/mL) (Non-Corn Source)

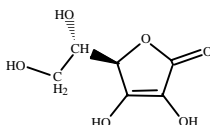
### Ascorbic Acid for Parenteral Use

PHARMACY BULK PACKAGE, NOT FOR DIRECT INFUSION

#### **Description:**

Ascor L NC<sup>®</sup> (Ascorbic Acid Injection, USP) is a sterile, nonpyrogenic solution of ascorbic acid prepared with the aid of sodium bicarbonate in water for injection. Ascor L NC<sup>®</sup> is prepared from Ascorbic Acid, USP derived from a source other than corn (i.e. non-corn source). Ascorbic Acid is an essential water-soluble vitamin. Ascor L NC<sup>®</sup> is indicated for injection by the intravenous, intramuscular, and subcutaneous routes. Each mL contains 500 mg of ascorbic acid, and edetate disodium 0.025% (w/v). It also contains sodium bicarbonate and may contain sodium hydroxide to aid in preparation and pH adjustment. The pH is 5.5-7.0. It contains no bacteriostat, antimicrobial agent or added buffer. It must be protected from light.

The chemical name of Ascorbic Acid is L-ascorbic acid. The molecular formula is C<sub>6</sub>H<sub>8</sub>O<sub>6</sub>. It occurs as white or slightly yellow crystals or powder. It has the following structural formula:



#### **Clinical Pharmacology:**

Ascorbic acid (vitamin C) has few strictly pharmacological actions. Administration in amounts greatly in excess of physiologic requirements causes no demonstrable effects. The vitamin is an essential coenzyme for collagen formation, tissue repair and synthesis of lipids and proteins. It acts both as a reducing agent and as an antioxidant and is necessary for many physiologic functions, e.g., metabolism of iron and folic acid, resistance to infection, and preservation of blood vessel integrity. Signs and symptoms of early vitamin C deficiency include malaise, irritability, arthralgia, hyperkeratosis of hair follicles, nosebleed, and petechial hemorrhages. Prolonged deficiency leads to clinical scurvy.

Ascorbic acid is normally present in both plasma and cells. The absorbed vitamin is ubiquitous in all body tissues. The highest concentrations are found in glandular tissue, the lowest in muscle and stored fat. Ascorbic acid is partially destroyed and partially excreted by the body. There is a renal threshold for vitamin C; the vitamin is excreted by the kidney in large amounts only when the plasma concentration exceeds this threshold, which is approximately 1.4 mg/100 mL. When the body is saturated with ascorbic acid, the plasma concentration will be about the same as that of the renal threshold; if further amounts are then administered, most of it escapes into the urine. When body tissues are not saturated and plasma concentration is low, administration of ascorbic acid results in little or no renal excretion.

A major route of metabolism of ascorbic acid involves its conversion to urinary oxalate, presumably through intermediate formation of its oxidized product, dehydroascorbic acid.

#### **Indications and Usage:**

Ascor L NC<sup>®</sup> is indicated for ascorbic acid deficiency. Parenteral ascorbic acid supplementation may be necessary in the treatment of scurvy for patients with gastric disorders, for patients with extensive injuries, for surgical patients and other who cannot take oral vitamins. Acute ascorbic acid deficiency may be associated with extensive injuries and other states of extreme stress. Vitamin C requirements are also significantly increased in certain diseases and conditions such as tuberculosis, hyperthyroidism, peptic ulcer, neoplastic disease, pregnancy and lactation.

#### **Manufactured By:**

**McGuff Pharmaceuticals, Inc.**  
**Santa Ana, CA 92704 U.S.A.**

Rx ONLY

381-0015 rev: NEW

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Or visit

[www.mcguffpharmaceuticals.com](http://www.mcguffpharmaceuticals.com)

## SNIF-NMR - A UNIQUE METHOD TO PROVE AUTHENTIC ORIGIN

EUROFINS SCIENTIFIC has developed a unique technique known as SNIF-NMR<sup>®</sup>.

This method is applied not only to check the purity of a variety of products but also to identify their origin. This means that SNIF-NMR<sup>®</sup>, offers a scientifically based guarantee of the authenticity, quality and safety of numerous biosubstances.

SNIF-NMR<sup>®</sup>, stands for Site-Specific Natural Isotopic Fractionation studied by Nuclear Magnetic Resonance. With the aid of this bioanalytical method, it is possible to examine the components of various biomolecules to a greater degree of precision than was formerly possible. While conventional methods are only applicable for detection at a molecular level, SNIF-NMR<sup>®</sup> is sensitive at atomic level and produces a unique and distinctive isotopic 'finger-print' for a variety of substances.

This fingerprint is created on the basis of the atomic composition of biomolecules. The atoms of biological molecules occur in differing atomic masses of which the different versions are known as isotopes. These isotopes occur at certain relative frequencies. Depending on its origin and the processing and production techniques applied to a substance, its molecules will differ with respect to the proportion, relationship or position of isotopes. By determining these parameters using nuclear magnetic resonance techniques, a typical isotopic profile can be created, which can be looked at as the molecule's 'isotopic fingerprint'.

This individual fingerprint is then entered into a database, designed by EUROFINS SCIENTIFIC, which contains the atomic profiles of more than 10,000 authentic or natural substances from all over the world. By comparing the fingerprint with the substances already examined, it is possible to determine to a high degree of precision, not only the identity and method of production of a large range of substances, but also in many cases their geographic origin.

Sophisticated methods of product manipulation both with respect to the production process and to the composition of the material, means that some ingredients can only be identified by examining their composition on an atomic and not a molecular level. In this respect, the SNIF-NMR<sup>®</sup>, technology offers a significant advantage compared with conventional methods of analysis.

By continuing to invest in research and development, EUROFINS SCIENTIFIC has steadily expanded the applications of the SNIF-NMR<sup>®</sup>, technology. Initially developed for the detection of false claims in wine production, the fields of application of the method were regularly expanded. Today it is used for analysing foodstuffs, aromatics, chemicals, cosmetics and pharmaceuticals. Recently, SNIF-NMR<sup>®</sup> has been validated as a method in criminological examinations to study marine oil pollution and to determine the origin of illegal drugs.

For More Information on Eurofins Scientific  
or SNIF - NMR technology visit:  
[www.eurofins.com](http://www.eurofins.com)