



# Quatrefolic®

# Online

1<sup>st</sup> issue 2016

Gnosis' commitment to introduce Quatrefolic® in worldwide markets never stops. Countries have different regulatory requirements and Gnosis works nearby to International Health Authorities in order to qualify and sustain our health's ingredient to make Quatrefolic® available for as much consumers as possible.

The great news is that, on February, Quatrefolic® has been approved as Food Additive by the Ministry of Health of the People's Republic of China (MOH).

This is just one of the successes of this outstanding active ingredient which continues to receive credit both from regulatory Health Authorities and from consumers as well.

Silvia Pisoni  
Marketing Manager



## Pills



In the next months Quatrefolic® will be officially listed in the regulation GB 2760-2011- NATIONAL STANDARD OF FOOD SECURITY: Usage Standard of Food Additives, in the category related to Instant Drinks preparation.



**Children's brain development and poorer cognitive performance linked with low-folate status in mothers' early pregnancy**

Quatrefolic®, as a source of the active form of folate, can be the first choice in the folate supplementation.

(Ars et al 2016 - Prenatal folate, homocysteine and vitamin B12 levels and child brain volumes, cognitive development and psychological functioning. British Journal of Nutrition. <http://www.ncbi.nlm.nih.gov/pubmed/26794411>)

## Instant Drinks: Consumers show a growing preference

Quatrefolic® is suitable for the preparation of instant drinks because of its stability in water and dosages dissolve quickly without leaving any residue, even in cold water. Quatrefolic® supports rapid absorption in the gastrointestinal tract.

Instant drinks are a popular way to take food and dietary supplements in many markets. Individual sachets contain a single dose of powder or granules that dissolve in water, making it easy to dose and to swallow.

They are perfect for health conscious people thanks to several advantages:

- Different flavors providing a pleasant experience and wide choice
- Increases compliance
- Convenient, single dose supply
- Dissolves without leaving residues
- Increases liquid intake of patients and consumers
- Allows to combined different actives

Elderly, children and people with specific problem to swallow, may take advantage from a drink containing Quatrefolic® the real soluble folate with a surprisingly high solubility in water, compared with the slight solubility of folic acid and (6S)-5-methyltetrahydrofolate calcium salt.

Choose your way to be  
always updated about folate

## Next events:

Vitafoods™ Europe

Palexpo, Geneva, Switzerland  
May 10 - 12, 2016  
Visit us at booth #L31

CPhl china  
 Food Ingredients Asia-China Health Ingredients China

SNIEC, Shanghai, China  
June 21 - 23, 2016  
Visit us at booth #E7D26



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# Check out the MTHFR Polymorphism in the world

Successful participation of Gnosis at the "Integrative Healthcare Symposium conference" held in New York on February 25<sup>th</sup>-27<sup>th</sup>.

Healthcare practitioners, from all facets of traditional and non-traditional medicine, came together for 3 days to collaborate, share research, hear fresh perspectives, discover the latest products and solutions and to connect with like-minded vendors and suppliers.

Integrative Healthcare symposium conference has provided new considerations and connections between food, nutrition and health, the same concepts that are, today as in the past, the stimulus to Gnosis to create the wide range of products among its branded functional ingredients, merging excellence in biotech innovation and constant evolution in nutraceutical applications.

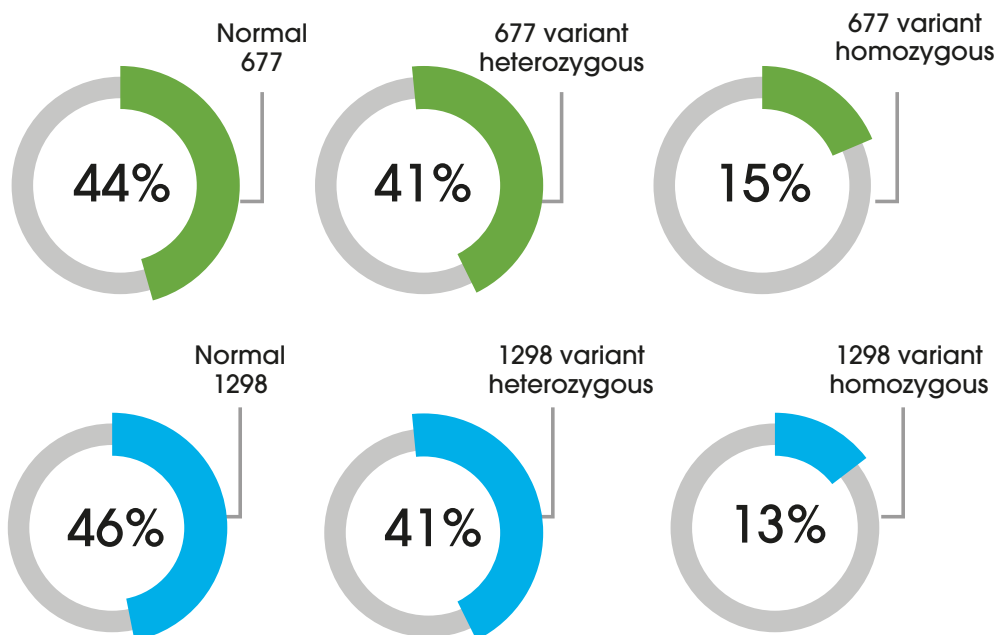
The enzyme methylenetetrahydrofolate reductase (MTHFR) allows folic acid and natural folate to be converted in the metabolically active form.

Some individuals, due to their unique genetic patterns and expression, have polymorphic forms of this enzyme and do not produce adequate or effective MTHFR. The two prime variants of MTHFR polymorphism are called C677T and A1298C and are reported as either heterozygous or homozygous. Emerging science has shed light on the implication between MTHFR polymorphism and chronic disease states.

Quatrefolic® is the glucosamine salt of (6S)-5-methyltetrahydrofolate and is structurally analogous to the reduced and active form of folic acid, so Quatrefolic® completely bypasses the "damaged" MTHFR conversion step and delivers a "finished" folate the body can immediately use without any kind of metabolization.

MTHFR variant genes are common!

**Percent of a mixed population containing 677 and 1298 variant genes.**



Frequency of the two most common polymorphisms, 677 and 1298 variant genes, found in a mixed population.

Reference: Robien A et al. Pharmacogenetics of folate-related drug targets in cancer treatment. Pharmacogenomics. 2005

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

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