EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA); Scientific Opinion on the substantiation of health claims related to a combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (ID 939, further assessment) pursuant to Article 13(1) of Regulation (EC) No 1924/2006

EFSA Publication; Tetens, Inge

Link to article, DOI: 10.2903/j.efsa.2012.2720

Publication date: 2012

Document Version
Publisher's PDF, also known as Version of record

Link back to DTU Orbit

Citation (APA):

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.
SCIENTIFIC OPINION

Scientific Opinion on the substantiation of health claims related to a combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (ID 939, further assessment) pursuant to Article 13(1) of Regulation (EC) No 1924/2006\(^1\)

EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA)\(^2,3\)

European Food Safety Authority (EFSA), Parma, Italy

ABSTRACT

Following a request from the European Commission, the Panel on Dietetic Products, Nutrition and Allergies was asked to provide a scientific opinion on a health claim related to a combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms. The food constituent that is the subject of the health claim, a combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722, is sufficiently characterised. The claimed effect, defence against pathogenic gastro-intestinal microorganisms, is a beneficial physiological effect. The proposed target population is the general population. No human intervention studies were provided from which conclusions could be drawn for the scientific substantiation of the claim. On the basis of the data provided, the Panel concludes that a cause and effect relationship has not been established between the consumption of a combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms.

© European Food Safety Authority, 2012

KEY WORDS

Lactobacillus rhamnosus, CNCM I-1720, Lactobacillus helveticus, CNCM I-1722, gastro-intestinal pathogens, health claims.

---

1 On request from the European Commission, Question No EFSA-Q-2012-00131, adopted on 26 April 2012.
2 Panel members: Carlo Agostoni, Jean-Louis Bresson, Susan Fairweather-Tait, Albert Flynn, Ines Golly, Hannu Korhonen, Pagona Lagiou, Martinus Lavik, Rosangela Marchelli, Ambroise Martin, Bevan Moseley, Monika Neuhäuser-Berthold, Hildegard Przyrembel, Seppo Salminen, Yolanda Sanz, Sean (J.J.) Strain, Stephan Strobel, Inge Tetens, Daniel Tomé, Hendrik van Loveren and Hans Verhagen. Correspondence: nda@efs.europa.eu
3 Acknowledgement: The Panel wishes to thank the members of the Working Group on Claims for the preparatory work on this scientific opinion: Carlo Agostoni, Jean-Louis Bresson, Susan Fairweather-Tait, Albert Flynn, Ines Golly, Marina Heinonen, Hannu Korhonen, Martinus Lavik, Ambroise Martin, Hildegard Przyrembel, Seppo Salminen, Yolanda Sanz, Sean (J.J.) Strain, Inge Tetens, Hendrik van Loveren and Hans Verhagen.


© European Food Safety Authority, 2012
SUMMARY

Following a request from the European Commission, the Panel on Dietetic Products, Nutrition and Allergies was asked to provide a scientific opinion on a list of health claims pursuant to Article 13 of Regulation (EC) No 1924/2006. The Commission has agreed with EU Member States that a certain number of Article 13 health claims would be eligible for further assessment by EFSA in order to be able to take a final decision on whether or not to include these claims in the list of permitted health claims. This opinion addresses the scientific substantiation of a health claim in relation to a combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms. The scientific substantiation is based on the information provided by the competent Authority of the United Kingdom for further assessment of this claim.

The food constituent that is the subject of the health claim is a combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722. The Panel considers that the combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 is sufficiently characterised.

The claimed effects, which are proposed for further assessment, are “maintenance of the defence against pathogenic gastro-intestinal microorganisms” and “decreasing potentially pathogenic intestinal microorganisms”. The proposed target population is the general population. The Panel considers that defence against pathogenic gastro-intestinal microorganisms is a beneficial physiological effect.

Five human intervention studies submitted investigated the effect of the combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 on antibiotic-associated diarrhoea. In three of these studies, the evidence provided did not allow establishing the infectious nature of the diarrhoeal episodes. The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of a claim related to defence against pathogenic gastro-intestinal microorganisms. In one study, no information was provided about the baseline characteristics of the two study groups, about the type and duration of the antibiotic treatment in the two study groups even though development of antibiotic-associated diarrhoea was reported to be influenced by the type of antibiotic used, and about the statistical tests used in the data analyses. In another study, it was unclear whether the study was randomised, and no information was provided on the baseline characteristics of the two study groups, and about the statistical tests used in the data analyses. The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of the claim.

Two open-label trials investigated the effect of the combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 as co-adjuvant to antibiotics and proton pump inhibitor therapy for Helicobacter pylori eradication. The Panel notes that no evidence was provided that results obtained in patients with Helicobacter pylori infection under antibiotics with respect to treatment of the disease can be extrapolated to healthy subjects with respect to the development of Helicobacter pylori infection. The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of a claim on defence against pathogenic gastro-intestinal microorganisms targeted to the general population (i.e. subjects without infections).

Two studies addressed the use of the combination of Lactobacillus rhamnosus CNCM I-1720 and Lactobacillus helveticus CNCM I-1722 for the treatment of acute and chronic diarrhoea of various origins, including gastro-intestinal infections, in hospitalised children. The Panel notes that the status of the gastro-intestinal tract in subjects with diarrhoea due to a gastro-intestinal infection may not be comparable to the status of the gastro-intestinal tract in subjects without gastro-intestinal infection. The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of the claim.
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

The Panel notes that no human intervention studies were provided from which conclusions could be drawn for the scientific substantiation of the claim. The Panel also notes that the animal and *in vitro* studies which were provided, cannot predict the occurrence of an effect of a combination of *Lactobacillus rhamnosus* CNCM I-1720 and *Lactobacillus helveticus* CNCM I-1722 on defence against pathogenic gastro-intestinal microorganisms in humans.

On the basis of the data presented, the Panel concludes that a cause and effect relationship has not been established between the consumption of a combination of *Lactobacillus rhamnosus* CNCM I-1720 and *Lactobacillus helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms.
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

**TABLE OF CONTENTS**

Abstract .......................................................................................................................... 1  
Summary ......................................................................................................................... 2  
Table of contents ............................................................................................................ 4  
Background as provided by the European Commission .................................................. 5  
Terms of reference as provided by the European Commission ....................................... 5  
EFSA Disclaimer ............................................................................................................. 5  
Introduction ..................................................................................................................... 6  
Assessment ..................................................................................................................... 6  
1. Characterisation of the food/constituent (ID 939) .......................................................... 6  
2. Relevance of the claimed effect to human health (ID 939) ............................................ 7  
3. Scientific substantiation of the claimed effect (ID 939) .............................................. 7  
Conclusions ................................................................................................................... 9  
Documentation provided to EFSA ................................................................................ 9  
References ...................................................................................................................... 9  
Appendices .................................................................................................................... 12  
Glossary and Abbreviations ......................................................................................... 18
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

**BACKGROUND AS PROVIDED BY THE EUROPEAN COMMISSION**

See Appendix A

**TERMS OF REFERENCE AS PROVIDED BY THE EUROPEAN COMMISSION**

See Appendix A

**EFSA DISCLAIMER**

See Appendix B
INTRODUCTION

The Commission has agreed with EU Member States that a certain number of Article 13 health claims would be eligible for further assessment by EFSA in order to be able to take a final decision on whether or not to include these claims in the list of permitted health claims. These claims include already assessed claims related to microorganisms which the Panel considered to be not sufficiently characterised and claims for which the NDA Panel concluded that there was insufficient evidence to establish a cause and effect relationship between the consumption of the food and the claimed effect.

Following an opinion of the NDA Panel on a health claim pursuant to Article 13 of Regulation (EC) No 1924/2006\(^4\) in which the Panel concluded that a combination of *Lactobacillus rhamnosus* CNCM I-1720 and *Lactobacillus helveticus* CNCM I-1722, which is the subject of the health claim, is not sufficiently characterised (EFSA Panel on Dietetic Products Nutrition and Allergies (NDA), 2009), EFSA received additional information from the competent Authority of the United Kingdom for further assessment of this claim. The information provided in the framework of further assessment for the health claims which are the subject of this opinion is tabulated in Appendix C.

ASSESSMENT

1. Characterisation of the food/constituent (ID 939)

The food constituent that is the subject of the health claims is a combination of *Lactobacillus rhamnosus* CNCM I-1720 (hereafter *L. rhamnosus* CNCM I-1720) and *Lactobacillus helveticus* CNCM I-1722 (hereafter *L. helveticus* CNCM I-1722).

The strain *L. rhamnosus* CNCM I-1720 is also known as *L. rhamnosus* R0011. A culture collection number from the Collection Nationale de Cultures de Microorganismes (CNCM), I-1720, was provided. The CNCM is a restricted-access non-public collection, which has the status of an International Depositary Authority under the Budapest Treaty. Data on the identification and characterisation of *L. rhamnosus* CNCM I-1720 at species and strain level using both phenotypic (cell morphology, colony morphology, carbohydrate fermentation pattern and enzymatic activity profile) and genotypic (DNA-DNA hybridisation, 16S rRNA gene sequence analysis, 16S/23S intergenic spacer region sequence analysis, RAPD and PFGE) methods were provided in the application and accompanying references (Provencher et al., 2003; Roy and Ward, 2004; Yeung et al., 2002).

The strain *L. helveticus* CNCM I-1722 is also known as *L. helveticus* R0052. A culture collection number from the CNCM, I-1722, was provided. Data on the identification and characterisation of *L. helveticus* CNCM I-1722 at species and strain level using both phenotypic (cell morphology, colony morphology, carbohydrate fermentation pattern, enzymatic activity profile, antimicrobials resistance pattern and PAGE) and genotypic (DNA-DNA hybridisation, 16S rRNA gene sequence analysis, 16S/23S intergenic spacer region sequence analysis, species-specific PCR, AFLP, MLST, RAPD and PFGE) methods were provided in the application and accompanying references (Naser et al., 2006; Yeung et al., 2002).

The formulation which is the subject of the claim is a combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 in a 95:5 ratio.

The Panel considers that the food constituent, a combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722, which is the subject of the health claim, is sufficiently characterised.

---

2. Relevance of the claimed effect to human health (ID 939)

The claimed effects which are proposed for further assessment are “maintenance of the defence against pathogenic gastro-intestinal (GI) microorganisms” and “decreasing potentially pathogenic intestinal microorganisms”. The proposed target population is the general population.

The presence of pathogenic microorganisms in the GI tract (e.g. viruses and bacteria) may lead to the development of GI infections. Defence against GI pathogenic microorganisms may protect against the development of GI infections.

The Panel considers that defence against pathogenic gastro-intestinal microorganisms is a beneficial physiological effect.

3. Scientific substantiation of the claimed effect (ID 939)

Of the references provided in relation to the claim, nine were human studies (five studies were on antibiotic-associated diarrhoea, two related to Helicobacter pylori (hereafter H. pylori) eradication therapy, and two on the treatment of diarrhoea), eight were animal studies, and six were in vitro studies. Five papers were published in Ukrainian and one in Czech, and their full English translations were given.

All the studies were carried out with the combination of microorganisms that is the subject of the health claim, consisting of L. rhamnosus CNCM I-1720 and L. helveticus CNCM I-1722 in a 95:5 ratio.

Studies on antibiotic-associated diarrhoea (AAD)

One study in adults and four studies in children which investigated the effect of the combination of L. rhamnosus CNCM I-1720 and L. helveticus CNCM I-1722 on AAD were provided.

Two studies were conducted in Korean hospitalised adult patients and in Ukrainian children with cystic fibrosis, respectively, under antibiotic treatment for respiratory tract infections (Aryayev and Kononenko, 2009; Song et al., 2010). The Panel notes that the infectious nature of the diarrhoeal episodes was not clearly established by the diagnostic criteria used, that causes of diarrhoea other than GI infections were not systematically excluded, that microbiological analyses were not performed, and that antibiotic treatment may induce diarrhoea by mechanisms unrelated to GI infections. The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of a claim related to defence against pathogenic gastro-intestinal microorganisms.

In a randomised, open-label study, Marushko and Shef (2007) evaluated the effect of the combination of L. rhamnosus CNCM I-1720 and L. helveticus CNCM I-1722 added to antibiotic therapy vs. antibiotic therapy alone (control) in a group of 34 hospitalised children with pneumonia or bronchitis aged from 10 months to 3 years. The presence and duration of diarrhoea, abdominal pain, abdominal bloating and vomiting were measured, and microbiological analyses of stools before and after treatment were performed. The Panel notes that the methodology used for the microbiological analyses was not well described, that the bacterial groups analysed were not sufficiently characterised as pathogens, and that the evidence provided, therefore, did not establish the infectious aetiology of the episodes of diarrhoea. The Panel considers that no conclusions can be drawn from this study for the scientific substantiation of a claim related to defence against pathogenic gastro-intestinal microorganisms.

Maydannik et al. (2010), in a multicentre, randomised, open-label study, assessed the effect of the combination of L. rhamnosus CNCM I-1720 and L. helveticus CNCM I-1722 together with antibiotic therapy vs. antibiotic therapy alone (control) on the incidence and duration of diarrhoea, and on the presence of C. difficile toxins A and B in 244 children with infections of the respiratory, urinary or digestive tracts, and who received antibiotic therapy for not less than seven days. The Panel notes that
no information was provided about the baseline characteristics of the two study groups (e.g. age and carrier status for *C. difficile* toxins), that precise information on type and duration of the antibiotic treatment in the two study groups was not provided even though development of AAD was reported to be influenced by the type of antibiotic used, and that the statistical tests used in the data analyses were not described. The Panel considers that no conclusions can be drawn from this study for the scientific substantiation of the claim.

In an open-label study, Gnaytenco et al. (2009) compared the incidence of AAD related to standard triple *H. pylori* eradication therapy (control; omeprazole, amoxicillin and clarithromycin for seven days) with the same therapeutic regimen taken together with the combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 in 45 subjects. The incidence of diarrhoea was measured and the assessment for *C. difficile* toxins A and B was performed at the beginning and at the end of the intervention. The Panel notes that it is unclear whether the study was randomised, that no information was provided on the baseline characteristics of the two study groups (e.g. clinical features, age and carrier status for *C. difficile* toxins), and that the statistical tests used in the data analyses were not described. The Panel considers that no conclusions can be drawn from this study for the scientific substantiation of the claim.

**Studies on *H. pylori* eradication**

Two open-label trials conducted in subjects with *H. pylori* infection undergoing treatment with antibiotics and proton pump inhibitor therapy for *H. pylori* eradication assessed the effect of the combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 as co-adjuvant therapy for *H. pylori* eradication (Vdovchenkon et al., 2008; Ziemniak, 2006). The Panel notes that no evidence was provided that results obtained in patients with *H. pylori* infection under antibiotics with respect to treatment of the disease can be extrapolated to healthy subjects with respect to the development of *H. pylori* infection. The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of a claim on defence against pathogenic gastro-intestinal microorganisms targeted to the general population (i.e. subjects without infections).

**Treatment of diarrhoea**

Two studies addressed the use of the combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 for the treatment of acute and chronic diarrhoea of various origins, including GI infections, in hospitalised children (Tlaskal et al., 1995; 2005). The Panel notes that the status of the GI tract in subjects with diarrhoea due to a GI infection may not be comparable to the status of the GI tract in subjects without GI infection. The Panel considers that no conclusions can be drawn from these studies for the scientific substantiation of the claim.

**Animal and in vitro studies**

The animal studies provided evaluated the effect of the combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 on the treatment of experimental *Citrobacter rodentrium* infection in adult mice (Johnson-Henry et al., 2005) and neonatal mice (Gareau et al., 2010), on bacterial translocation from the intestine to the lymph nodes and on the intestinal barrier function in rats experiencing chronic psychological stress (Zareie et al., 2005), on mucin expression in a rat model (Dykstra et al., 2011), on colonic macromolecular permeability and corticosterone level in an animal model of stress induced by neonatal maternal separation (Gareau et al., 2007), on the rate of *H. pylori* eradication in Mongolian gerbils (Brzozowski et al., 2006), on *H. pylori* colonisation in mice (Johnson-Henry et al., 2004), and on GI functions and immune markers (e.g. gastric emptying, intestinal permeability and gastric CD3+ cell counts) after chronic *H. pylori* infection in mice (Verdu et al., 2008).

The in vitro studies submitted investigated the effects of a combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 on the interaction of *Campylobacter jejuni* with a cell line or
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

invasion of T48 epithelial cell line (Alemka et al., 2010; Wine et al., 2009), on cytokine secretion by a human intestinal epithelial cell line (Wallace et al., 2003), on epithelial injury (paracellular permeability) following exposure to *Escherichia coli* O157:H7 (Sherman et al., 2005), on adhesion of *Escherichia coli* O157:H7 to epithelial cells (Johnson-Henry et al., 2007), and on the immune effects of *Escherichia coli* O157:H7 infection in epithelial cells (Jandu et al., 2009).

The Panel notes that no human intervention studies were provided from which conclusions could be drawn for the scientific substantiation of the claim. The Panel also notes that animal and in vitro studies cannot predict the occurrence of an effect of a combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 on defence against pathogenic gastro-intestinal microorganisms in humans.

The Panel concludes that a cause and effect relationship has not been established between the consumption of a combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms.

**CONCLUSIONS**

On the basis of the data presented, the Panel concludes that:

- The food constituent, a combination of *Lactobacillus rhamnosus* CNCM I-1720 and *Lactobacillus helveticus* CNCM I-1722, which is the subject of the health claim, is sufficiently characterised.

- The claimed effects proposed for further assessment are “maintenance of the defence against pathogenic gastro-intestinal microorganisms” and “decreasing potentially pathogenic intestinal microorganisms”. The proposed target population is the general population. Defence against pathogenic gastro-intestinal microorganisms is a beneficial physiological effect.

- A cause and effect relationship has not been established between the consumption of a combination of *Lactobacillus rhamnosus* CNCM I-1720 and *Lactobacillus helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms.

**DOCUMENTATION PROVIDED TO EFSA**

Health claims pursuant to Article 13 of Regulation (EC) No 1924/2006 for further assessment (No: EFSA-Q-2012-00131). The scientific substantiation is based on the information provided by the competent Authority of the United Kingdom for further assessment of this claim (available at: http://www.efsa.europa.eu/en/topics/topic/article13.htm).

**REFERENCES**


A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)


A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)


APPENDICES

APPENDIX A

BACKGROUND AND TERMS OF REFERENCE AS PROVIDED BY THE EUROPEAN COMMISSION

The Regulation 1924/2006 on nutrition and health claims made on foods5 (hereinafter "the Regulation") entered into force on 19th January 2007.

Article 13 of the Regulation foresees that the Commission shall adopt a Community list of permitted health claims other than those referring to the reduction of disease risk and to children's development and health. This Community list shall be adopted through the Regulatory Committee procedure and following consultation of the European Food Safety Authority (EFSA).

Health claims are defined as "any claim that states, suggests or implies that a relationship exists between a food category, a food or one of its constituents and health".

In accordance with Article 13 (1) health claims other than those referring to the reduction of disease risk and to children's development and health are health claims describing or referring to:

a) the role of a nutrient or other substance in growth, development and the functions of the body; or
b) psychological and behavioural functions; or
c) without prejudice to Directive 96/8/EC, slimming or weight-control or a reduction in the sense of hunger or an increase in the sense of satiety or to the reduction of the available energy from the diet.

To be included in the Community list of permitted health claims, the claims shall be:

(i) based on generally accepted scientific evidence; and
(ii) well understood by the average consumer.

Member States provided the Commission with lists of claims as referred to in Article 13 (1) by 31 January 2008 accompanied by the conditions applying to them and by references to the relevant scientific justification. These lists have been consolidated into the list which forms the basis for the EFSA consultation in accordance with Article 13 (3).

ISSUES THAT NEED TO BE CONSIDERED

IMPORTANCE AND PERTINENCE OF THE FOOD6

Foods are commonly involved in many different functions7 of the body, and for one single food many health claims may therefore be scientifically true. Therefore, the relative importance of food e.g. nutrients in relation to other nutrients for the expressed beneficial effect should be considered: for functions affected by a large number of dietary factors it should be considered whether a reference to a single food is scientifically pertinent.

It should also be considered if the information on the characteristics of the food contains aspects pertinent to the beneficial effect.

---

5 OJ L12, 18/01/2007
6 The term 'food' when used in this Terms of Reference refers to a food constituent, the food or the food category.
7 The term 'function' when used in this Terms of Reference refers to health claims in Article 13(1)(a), (b) and (c).
**SUBSTANTIATION OF CLAIMS BY GENERALLY ACCEPTABLE SCIENTIFIC EVIDENCE**

Scientific substantiation is the main aspect to be taken into account to authorise health claims. Claims should be scientifically substantiated by taking into account the totality of the available scientific data, and by weighing the evidence, and shall demonstrate the extent to which:

(a) the claimed effect of the food is beneficial for human health,

(b) a cause and effect relationship is established between consumption of the food and the claimed effect in humans (such as: the strength, consistency, specificity, dose-response, and biological plausibility of the relationship),

(c) the quantity of the food and pattern of consumption required to obtain the claimed effect could reasonably be achieved as part of a balanced diet,

(d) the specific study group(s) in which the evidence was obtained is representative of the target population for which the claim is intended.

EFSA has mentioned in its scientific and technical guidance for the preparation and presentation of the application for authorisation of health claims consistent criteria for the potential sources of scientific data. Such sources may not be available for all health claims. Nevertheless it will be relevant and important that EFSA comments on the availability and quality of such data in order to allow the regulator to judge and make a risk management decision about the acceptability of health claims included in the submitted list.

The scientific evidence about the role of a food on a nutritional or physiological function is not enough to justify the claim. The beneficial effect of the dietary intake has also to be demonstrated. Moreover, the beneficial effect should be significant i.e. satisfactorily demonstrate to beneficially affect identified functions in the body in a way which is relevant to health. Although an appreciation of the beneficial effect in relation to the nutritional status of the European population may be of interest, the presence or absence of the actual need for a nutrient or other substance with nutritional or physiological effect for that population should not, however, condition such considerations.

Different types of effects can be claimed. Claims referring to the maintenance of a function may be distinct from claims referring to the improvement of a function. EFSA may wish to comment whether such different claims comply with the criteria laid down in the Regulation.

**WORDING OF HEALTH CLAIMS**

Scientific substantiation of health claims is the main aspect on which EFSA's opinion is requested. However, the wording of health claims should also be commented by EFSA in its opinion.

There is potentially a plethora of expressions that may be used to convey the relationship between the food and the function. This may be due to commercial practices, consumer perception and linguistic or cultural differences across the EU. Nevertheless, the wording used to make health claims should be truthful, clear, reliable and useful to the consumer in choosing a healthy diet.

In addition to fulfilling the general principles and conditions of the Regulation laid down in Article 3 and 5, Article 13(1)(a) stipulates that health claims shall describe or refer to "the role of a nutrient or other substance in growth, development and the functions of the body". Therefore, the requirement to describe or refer to the 'role' of a nutrient or substance in growth, development and the functions of the body should be carefully considered.

The specificity of the wording is very important. Health claims such as "Substance X supports the function of the joints" may not sufficiently do so, whereas a claim such as "Substance X helps maintain the flexibility of the joints" would. In the first example of a claim it is unclear which of the various functions of the joints is described or referred to contrary to the latter example which specifies this by using the word "flexibility".

EFSA Journal 2012;10(6):2720
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

The clarity of the wording is very important. The guiding principle should be that the description or reference to the role of the nutrient or other substance shall be clear and unambiguous and therefore be specified to the extent possible i.e. descriptive words/terms which can have multiple meanings should be avoided. To this end, wordings like "strengthens your natural defences" or "contain antioxidants" should be considered as well as "may" or "might" as opposed to words like "contributes", "aids" or "helps".

In addition, for functions affected by a large number of dietary factors it should be considered whether wordings such as "indispensable", "necessary", "essential" and "important" reflects the strength of the scientific evidence.

Similar alternative wordings as mentioned above are used for claims relating to different relationships between the various foods and health. It is not the intention of the regulator to adopt a detailed and rigid list of claims where all possible wordings for the different claims are approved. Therefore, it is not required that EFSA comments on each individual wording for each claim unless the wording is strictly pertinent to a specific claim. It would be appreciated though that EFSA may consider and comment generally on such elements relating to wording to ensure the compliance with the criteria laid down in the Regulation.

In doing so the explanation provided for in recital 16 of the Regulation on the notion of the average consumer should be recalled. In addition, such assessment should take into account the particular perspective and/or knowledge in the target group of the claim, if such is indicated or implied.

**TERMS OF REFERENCE**

**HEALTH CLAIMS OTHER THAN THOSE REFERRING TO THE REDUCTION OF DISEASE RISK AND TO CHILDREN’S DEVELOPMENT AND HEALTH**

EFSA should in particular consider, and provide advice on the following aspects:

- Whether adequate information is provided on the characteristics of the food pertinent to the beneficial effect.

- Whether the beneficial effect of the food on the function is substantiated by generally accepted scientific evidence by taking into account the totality of the available scientific data, and by weighing the evidence. In this context EFSA is invited to comment on the nature and quality of the totality of the evidence provided according to consistent criteria.

- The specific importance of the food for the claimed effect. For functions affected by a large number of dietary factors whether a reference to a single food is scientifically pertinent.

In addition, EFSA should consider the claimed effect on the function, and provide advice on the extent to which:

- the claimed effect of the food in the identified function is beneficial.

- a cause and effect relationship has been established between consumption of the food and the claimed effect in humans and whether the magnitude of the effect is related to the quantity consumed.

- where appropriate, the effect on the function is significant in relation to the quantity of the food proposed to be consumed and if this quantity could reasonably be consumed as part of a balanced diet.

- the specific study group(s) in which the evidence was obtained is representative of the target population for which the claim is intended.
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

- the wordings used to express the claimed effect reflect the scientific evidence and complies with the criteria laid down in the Regulation.

When considering these elements EFSA should also provide advice, when appropriate:

- on the appropriate application of Article 10 (2) (c) and (d) in the Regulation, which provides for additional labelling requirements addressed to persons who should avoid using the food; and/or warnings for products that are likely to present a health risk if consumed to excess.
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

**APPENDIX B**

**EFSA DISCLAIMER**

The present opinion does not constitute, and cannot be construed as, an authorisation to the marketing of the food/food constituent, a positive assessment of its safety, nor a decision on whether the food/food constituent is, or is not, classified as foodstuffs. It should be noted that such an assessment is not foreseen in the framework of Regulation (EC) No 1924/2006.

It should also be highlighted that the scope, the proposed wordings of the claims and the conditions of use as proposed in the Consolidated List may be subject to changes, pending the outcome of the authorisation procedure foreseen in Article 13(3) of Regulation (EC) No 1924/2006.
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

APPENDIX C

Table 1. Health claims related to a combination of *Lactobacillus rhamnosus* CNCM I-1720 and *Lactobacillus helveticus* CNCM I-1722 including conditions of use, as proposed in the framework of further assessment.

<table>
<thead>
<tr>
<th>ID</th>
<th>Food or Food constituent</th>
<th>Health Relationship</th>
<th>Proposed wording</th>
</tr>
</thead>
<tbody>
<tr>
<td>939</td>
<td>A combination of 2 bacterial strains: <em>Lactobacillus rhamnosus</em> CNCM I-1720 and <em>Lactobacillus helveticus</em> CNCM I-1722.</td>
<td>Maintenance of the defence against pathogenic GI microorganisms Moreover, decreasing potentially pathogenic intestinal microorganisms might be beneficial to human health</td>
<td>Helps to maintain gut health by improving defence against gastro-intestinal pathogens</td>
</tr>
</tbody>
</table>

**Conditions of use**
For adults, the consumption of $8 \times 10^9$ CFU of the food constituent per day to be effective for the claimed effect.
The target population is general population (adults and children).
A combination of *L. rhamnosus* CNCM I-1720 and *L. helveticus* CNCM I-1722 and defence against pathogenic gastro-intestinal microorganisms (further assessment)

Glossary and Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAD</td>
<td>Antibiotic-associated diarrhoea</td>
</tr>
<tr>
<td>AFLP</td>
<td>Amplified fragment length polymorphism</td>
</tr>
<tr>
<td>CFU</td>
<td>Colony forming units</td>
</tr>
<tr>
<td>CNCM</td>
<td>Collection Nationale de Cultures de Microorganismes</td>
</tr>
<tr>
<td>DNA</td>
<td>Deoxyribonucleic acid</td>
</tr>
<tr>
<td>GI</td>
<td>Gastro-intestinal</td>
</tr>
<tr>
<td>MLST</td>
<td>Multilocus sequence typing</td>
</tr>
<tr>
<td>PAGE</td>
<td>Polyacrylamide gel electrophoresis</td>
</tr>
<tr>
<td>PCR</td>
<td>Polymerase chain reaction</td>
</tr>
<tr>
<td>PFGE</td>
<td>Pulsed field gel electrophoresis</td>
</tr>
<tr>
<td>RAPD</td>
<td>Random amplification of polymorphic DNA</td>
</tr>
<tr>
<td>rRNA</td>
<td>Ribosomal ribonucleic acid</td>
</tr>
</tbody>
</table>