

# ENZYMATIC DIGEST OF CASEIN KH – A144600

# Description

- Origin : Enzymatic Digest of Casein **KH (Kosher, Halal)** is obtained by an enzymatic digestion of casein of Oceanic (NZ or AUS) origin using all Kosher & Halal components. The product is considered **Kosher Dairy** due to the presence of milk derived casein.
- Context : this peptone is produced from alimentary or food-grade casein, with enzymes of microbial origin. It is therefore compliant with the Note for Guidance EMEA/410/01 Rev. 3 of March 2011 (2011/C 73/01 of the Official Journal of the European Union) but can not be considered allergen-free due to the presence of milk proteins (Annex IIIa of the EU directive 2003/89/EC, updated with 2006/142/EC).
- Application : obtained through a process designed to produce a **Kosher/Halal** equivalent to Tryptone USP, but without the pancreatine, this peptone has been specifically developed for use in the food fermentation and probiotics industry, where growth of lactic acid bacteria is the primary focus but where a non-animal product is not essential. This peptone can be used by itself or as a component in more complex growth media as MRS broth, where excellent results have been observed.



# **Physical properties**

Appearance : white powder Stability (2% in solution) : stable Solubility in water at 2% : total

# **Microbiological controls**

Total aerobic mesophilic flora  $\leq$  5000 cfu/g

# **Chemical analysis**

Total nitrogen (NT) : 12.1%  $\alpha$ -amino nitrogen (N $\alpha$ ) : 3.5% N $\alpha$  / NT : 0.29 Sulfuric ash : 13.0% pH (2% in solution ) : 7.3 Total carbohydrates : 0.4%. Chlorides (as NaCl) : 0.1% Loss on drying :  $\leq$  6.0%

#### **Standard packaging**

25 kg carton ; other formats inquire. Delivered with Certificate of Analysis, Certificate of Origin, *Kashrus* and/or Halal certificate. Separate non-Animal, GMO and allergen statements available upon request.

#### Amino acid distribution (mg/g)

	Total amino acids		Total amino acids
Aspartic acid	54.6	Methionine	17.2
Threonine	32.3	Isoleucine	39.6
Serine	41.4	Leucine	69.9
Glutamic acid	167.0	Tyrosine	29.5
Proline	81.4	Phenylalanine	39.1
Glycine	14.8	Histidine	21.4
Alanine	23.8	Lysine	59.7
Cysteine	1.90	Arginine	28.2
Valine	50.3	Tryptophan	10.2

# Molecular weight distribution (Daltons)



# **Chemical / Biochemical characteristics**

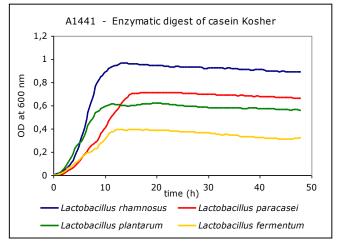
Nitrites :negativeProteoses :positiveIndole :negativeTryptophan :positiveUndigested proteins :negativeCalcium :< 0.08%</td>

#### Sanitary / Regulatory statement

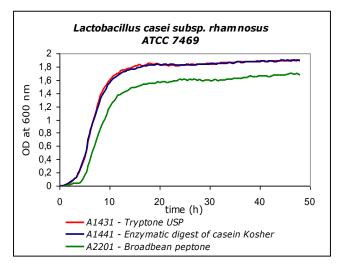
Given the origins and processing of this product, it remains outside of the scope of European Pharmacopoeia directives 1999/82/EC, 1999/104/EC, 2000/418/EC & 2011/C 73/01, as well as as well as the Note for Guidance EMEA/410/01 Rev. 3. The casein used as a starting material is sourced from animals in good health and the milk declared fit for human consumption. Geographical origins are New Zealand or Australia.

To the best of our knowledge it is GMO free (according to the European Directive 2001/18/CE defining legislation for labeling ; absence = less than 0.9%).

# **OBSERVED MICROBIAL GROWTH POTENTIAL\*:**



Inoculum 10<sup>6</sup> cfu / mL Growth medium: 3 % peptone + 0.25 % glucose

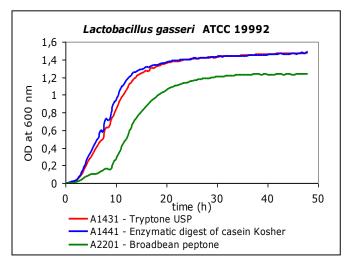


Inoculum 10<sup>6</sup> cfu / mL

Growth medium: modified MRS Medium Comparison to standard Tryptone and one non-animal peptone

A1441 - Enzymatic digest of casein Kosher 2 1,8 1,6 at 600 nm 1,4 1,2 1 0,8 В 0,6 0,4 0,2 0 40 50 0 10 20 30 time (h) Lactobacillus rhamnosus Lactobacillus paracasei Lactobacillus plantarum Lactobacillus fermentum

Inoculum 10<sup>6</sup> cfu / mL Growth medium: modified MRS Medium



Inoculum 10<sup>6</sup> cfu / mL Growth medium: modified MRS Medium Comparison to standard Tryptone and one non-animal peptone

\*The identical A144100, Enzymatic digest of Casein Kosher was used for bacterial growth test. This peptone demonstrates excellent growth of a wide variety of microorganisms and can be used in various applications as an all-purpose substrate. Equivalency tests suggest this product can be used in the place of standard Tryptone USP when applications call for the elimination of porcine pancreatine. Results may differ depending on individual laboratory conditions and for other genera, species and strains.

**Kosher certification** : *Orthodox Union* Rabbi Menachem Adler, Administrator



Halal certification : certified by HFFIA, The Hague, Netherlands



Produced under **ISO 9001 v 2015** certification

Manufacturing site and quality system open to audits

by qualified customers. Inquire with Solabia.

CoA available online : use product code **A144600** + lot number.

**Storage :** Keep in original packaging when not in use, in a dry area ideally between 10 and 35°C. Avoid direct sunlight. Hygroscopic product.

**Expiry date** : 5 years from date of manufacture.

V. 05/2019

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