



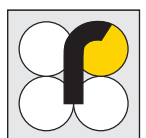
Season's Greetings
and a Happy New Year

2012

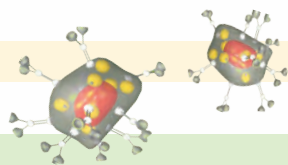
wishes R-Biopharm!

The Topics:

- p.2 Our products
- p.4 Information from R-Biopharm Rhône, Scotland
- p.6 Fairs and conferences



Our products



Food allergens in wine



Wines fined with casein/caseinate/milk products or with ovalbumin/egg white products can contain residual allergens. The European Food Safety Authority (EFSA) concludes that residual allergens in wine may trigger adverse reactions in susceptible individuals (EFSA Journal 2011;9(10):2384).

According to the EU regulation, wines are exempt from allergen labeling only until June 2012. Thereafter, allergen labeling of wines may become compulsory. Casein or egg protein for example is used in the manufacture of wine as a

clarification agent. Lysozyme from hen's egg is used as an anti-microbial stabilizer.

R-Biopharm's RIDASCREEN® allergen ELISA test kits can be used to detect casein, lysozyme or whole egg powder (egg white protein) in wines. The bioavid Lateral Flow test strips can also be used to detect contaminations with egg or milk (mainly casein) in wine or the surrounding production site.

The following table summarizes the characteristics of the R-Biopharm test kits suitable for wine analysis.

	RIDASCREEN® FAST Casein (R4612)	RIDASCREEN® FAST Lysozym (R6452)	RIDASCREEN® FAST Ei/ Egg Protein (R6402)	bioavid LFD Milk BL613-25	bioavid LFD Egg BL608-25
Limit of detection	0.24 ppm	0.02 ppm	0.27 ppm whole egg powder (0.07 ppm egg white protein)	1 ppm milk in white wine, 10 ppm milk in red wine	1 ppm egg powder/ whole egg/ egg white (cross reaction to lysozyme)
Limit of quantification	0.5 ppm	0.05 ppm	0.5 ppm whole egg powder	-	-
Intra-Assay CV (n=6)	3.9 %	3.8 %	7.3 %	-	-
Inter-Assay CV (n=3)	4.7 %	8.8 %	11.9 %	-	-



New quantitative allergen real-time PCR kits



Following the successful launch of quantitative real-time PCR kits for gluten, sesame and celery, the company portfolio of the quantitative SureFood® ALLERGEN real-time PCR kits was recently expanded.

Three new quantitative assays are now available in supplement to the existing qualitative assays: SureFood® ALLERGEN QUANT Hazelnut (S3202), SureFood® ALLERGEN QUANT Lupin (S3211), and SureFood® ALLERGEN QUANT Pistachio (S3214). Each kit comes complete with DNA standards for quantification.

The tests are run in parallel with laboratory control material (SureFood® ALLERGEN QUANTARD 40) for calibrated conversion of the number of DNA copies into the conventional units of mg/kg or ppm. The corn meal-based control material serves as a carrier substance and contains 14 different allergenic food ingredients at concentrations of 40 ppm (mg/kg) each.

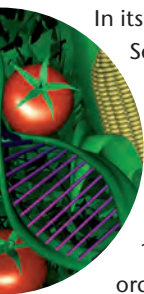
The sensitivity of the respective parameter in corn meal matrix was determined using the SureFood® PREP ALLERGEN kit (S1012) based on the DIN 32456 standard. The results are presented in the table below.

Parameter	ALLERGEN qualitative		ALLERGEN quantitative			Cross contamination
	Art. No.	Limit of Detection	Art. No.	Limit of Detection	Limit of Quantification	
Soy	S3101	≤ 4 ppm	-	-	-	not known
Hazelnut	S3102	≤ 0.4 ppm	S3202	≤ 0.4 ppm	1 - 400 ppm	not known
Peanut	S3103	≤ 0.4 ppm	-	-	-	not known
Almond	S3104	≤ 4 ppm	-	-	-	not known
Celery	S3105	≤ 0.4 ppm	S3205	≤ 0.4 ppm	1.9 - 400 ppm	not known
Gluten	S3106	≤ 0.4 ppm	S3206	≤ 0.4 ppm	1 - 400 ppm	not known
Walnut	S3107	≤ 0.4 ppm	-	-	-	not known
Sesame	S3108	≤ 0.4 ppm	S3208	≤ 0.4 ppm	1 - 400 ppm	not known
Mustard	S3109	≤ 0.4 ppm	-	-	-	not known
Fish	S3110	≤ 0.4 ppm	-	-	-	not known
Lupine	S3111	≤ 0.4 ppm	S3211	≤ 0.4 ppm	2.6 - 400 ppm	not known
Shellfish	S3112	≤ 0.4 ppm	-	-	-	Insects, Abalone, Mussel
Mollusc	S3113	≤ 0.4 ppm	-	-	-	not known
Pistachio	S3114	0.4 ppm	S3214	0.4 ppm	1 - 400 ppm	not known
Cashew	S3115	≤ 0.4 ppm	-	-	-	not known

With both qualitative and additional quantitative real-time allergen PCR kits available (SureFood® ALLERGEN QUANT), the analyst now has the tools to evaluate

samples by molecular biology, qualitatively and quantitatively. It is also possible to analyse one or more parameters out of just one DNA preparation.

GMOs in honey – a new legal situation



In its decision on case C-442/09 on September 6, 2011, the European Court of Justice (ECJ) ruled that honey contaminated with pollen from genetically modified crops must comply with EU food safety and labeling regulations 1829/2003 and EC 1830/2003 in order to be sold in the European Union. Thus, pollen is no longer seen as an integral component of honey but rather, as a food ingredient. As such, it must be classified according to these regulations for genetically modified organisms (GMOs).

Honey not contaminated with pollen from GM crops can be marketed as before. The new regulations will mainly affect honey imported from North America, South America, Asia and Eastern Europe. In the event that pollen containing trace amounts of GMOs is detected, it must be determined whether the corresponding GMO event was permissible for foodstuffs in Europe. If this is not the case, the honey will not be marketable and this has already resulted in honey products being removed from the market.

In the case of an approved GMO event, honey with GMO pollen to total pollen exceeding the threshold of 0.9 % must be labeled as a GMO-containing product.

Oilseed rape, corn and soybean are often involved in GMO events because some of the GMO plants grown around the world are not intended for use as food products in Europe and have no approval or only restricted approval in Europe (for products like processed canola oil).

The first step is to test honey for GMO-containing pollen. Real-time PCR-based GMO screening tests such as the SureFood® kits are ideal for these applications.

The SureFood®PREP Plant kit (S1002), which provides a specific protocol for honey sample preparation and subsequent DNA preparation, is available.

Depending on whether a two-channel or four-channel real-time thermocycler is used, honey samples can be tested for the most important GMO promoter genes using either SureFood® GMO Screen 35S + NOS + FMV Screening (S2026) plus an external amplification control or SureFood® GMO 4plex 35S/NOS/FMV + an internal amplification control (S2126). If the result is positive, the samples can be subjected to qualitative and/or quantitative tests for specific GMO events dependent on the origin of the honey. CONGEN Biotechnologie GmbH provides the analytical services needed for these tests.

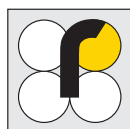
Information from R-Biopharm Rhône (RBR), Scotland

New!

Launch of EASIMIP™ PATULIN

R-Biopharm Rhône Ltd would like to announce the launch of new EASIMIP™ PATULIN, a MIP - molecularly imprinted polymer column for use in conjunction with HPLC for the analysis of patulin. Patulin is a mycotoxin mainly found in rotting apples and is produced by the

Aspergillus and *Penicillium* moulds. Although it is not a particularly potent toxin, studies have shown that it is genotoxic i.e. it has the potential to be mutagenic and/or carcinogenic. The amount of patulin in apple products is generally viewed as a measure of the



quality of the apples which are used for food production. Products that might contain patulin are apple juice, apple puree, apple sauces, baby food and cider.

Many countries have introduced patulin restrictions in apple products and the EU set limits which came into force in November 2003. They are as follows:

Patulin in Food	
Products	Maximum Level
Fruit juice, spirit drinks and cider	50 ppb
Solid apple products intended for direct human consumption	25 ppb
Baby foods, apple juice and apple products for infants	10 ppb

Surveillance and testing of patulin can be problematic due to the small levels present so method sensitivity and sample preparation are extremely important. Complex matrices can also contain interfering components which could also make patulin difficult to detect. EASIMIP™ PATULIN uses a procedure which is based on molecularly imprinted polymer (MIP) technology which makes the test specific, sensitive, rapid and simple to perform. The columns contain a molecularly imprinted polymer specific to the toxin of interest. Following extraction of the toxin, the sample extract is centrifuged, filtered and passed through the MIP column.

Any toxin which is present in the sample is retained by the MIP within the column. The column is washed to remove any unbound material and the toxin is then released by the MIP following elution with solvent. The eluate is collected prior to analysis by HPLC.

The total extraction and clean-up time takes approximately 45 minutes to perform. The result is improved clean-up and concentration of the toxin from food samples giving a much cleaner chromatogram.

Patulin Crystalline Standards and Pectinase are also available.

New Application Notes

AFLAOCHRA PREP®	Nuts
AFLAPREP® und EASI-EXTRACT® AFLATOXIN	Cinnamon, Coconut and Copra Meal
DONPREP®	Oats and spices
DZT MS-PREP®	Beer
FUMONIPREP®	Garlic and black pepper
EASI-EXTRACT® ZEARALENONE	Baby food and spices
EASI-EXTRACT® FOLIC ACID	Beer

If you are interested in our products,

please contact your local distributor.

Fairs and conferences Representative: R-Biopharm AG



16.01. - 18.01.2012

1st ICC India Grain Quality & Safety Conference
Eros Hotel – Managed by Hilton New Delhi Nehru Place
American Plaza, Nehru Place, New Delhi, India 110019
www.india2012.icc.or.at

07.02. - 09.02.2012

AgroFarm Russia
International Exhibition for Animal Husbandry and Breeding
All-Russian Exhibition Center, Moscow, Russia

R-Biopharm AG



In vino veritas?

Our test systems will find it out!



Test kits for
your wine
analysis:

- **Constituents:** sugar, acids, vitamins,..
- **Allergens:** Casein, Egg, Lysozyme
- **Mikrobiologie/Hygiene:**
Total Count, Yeast and Mold, ATP

In various test formats:

Different test formats as enzyme immunoassays, dip sticks, immunoaffinity columns, card tests, PCR and a comprehensive range of enzymatic reagents

The next R-Biopharm^{news} will be published in the 1st quarter 2012.

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