

RHONE®: a brand you can trust

Immunoaffinity columns analysts can rely on for quality performance



High quality

- Exceeds Official Method criteria
- Manufactured with bespoke automated systems ensuring product consistency and providing unique batch number etching



Value for money

- Delivering quality at an acceptable cost
- Outstanding technical support from an expert team
- Produced in large batch sizes reducing in-house quality testing



Reliable

- Consistently high level performance
- Global mycotoxin test kit supplier for over 35 years



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Balancing food security and value for money

Current economic factors are increasing prices which puts pressure on laboratories to ensure food security without compromising on standards for food safety. Mycotoxins in commodities, such as, cereals, dried fruit, coffee, cocoa and spices can occur pre-harvest and during storage. Protection against exposure to mycotoxins in human food and animal feed is ensured by applying strict maximum limits worldwide. These standards are monitored through regular surveillance using accurate and reliable validated methods. In the present climate this surveillance needs to be maintained and even increased to ensure continued high levels of consumer protection.

Mycotoxin legislation

Numerous mycotoxins are legislated by law, which means that the concentration in food and feed must not exceed a maximum level. It is therefore necessary to test commodities for all mycotoxins potentially present. The most commonly analysed mycotoxins are aflatoxin, ochratoxin, deoxynivalenol and zearalenone which often constitute the core testing requirements for laboratories. It is therefore important to have a range of immunoaffinity products that are suitable for these essential everyday analyses.

Immunoaffinity columns can be used to target single mycotoxins or combinations of mycotoxins, such as aflatoxin and ochratoxin. For dried fruit and spices there are limits for aflatoxin and ochratoxin, in this case a multi-toxin method targeted at this combination is of interest.

	Peanuts, nuts and nut products	<ul style="list-style-type: none"> Aflatoxin B1 and / or total 	
	Dried fruit and spices	<ul style="list-style-type: none"> Aflatoxin B1 and / or total 	<ul style="list-style-type: none"> Ochratoxin A
	Cereals	<ul style="list-style-type: none"> Aflatoxin B1 and / or total Deoxynivalenol 	<ul style="list-style-type: none"> Ochratoxin A T-2 & HT-2 Zearalenone
	Maize	<ul style="list-style-type: none"> Aflatoxin B1 and / or total Deoxynivalenol Fumonisin 	<ul style="list-style-type: none"> Ochratoxin A T-2 & HT-2 Zearalenone
	Baby foods	<ul style="list-style-type: none"> Aflatoxin B1 and / or total Aflatoxin M1 Deoxynivalenol 	<ul style="list-style-type: none"> Fumonisin Ochratoxin A Zearalenone
	Animal feed	<ul style="list-style-type: none"> Aflatoxin B1 and / or total Deoxynivalenol Fumonisin 	<ul style="list-style-type: none"> Ochratoxin A T-2 & HT-2 Zearalenone
	Pasta	<ul style="list-style-type: none"> Deoxynivalenol 	<ul style="list-style-type: none"> Zearalenone

Simplistic overview of regulated mycotoxins for food and feed

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Official Methods & immunoaffinity clean-up

Immunoaffinity columns have been available for many years which is reflected in Official Methods and is an endorsement of this approach.

The beauty of employing an immunoaffinity column clean-up is that irrespective of matrix, the method follows the same tried and tested steps. The efficiency of the extraction of the toxin from the matrix needs to be demonstrated, but otherwise the versatility of immunoaffinity column clean-up ensures ease of analysis by either HPLC or LC-MS/MS without matrix interference.



The European Committee for Standardization (CEN) brings together the national standardization bodies of thirty-three European countries. Validated methods submitted to CEN are rigorously scrutinized before adoption as a CEN Standard. AOAC International operates in a similar fashion by examining the results from inter-laboratory validation studies against a set of method performance criteria and if acceptable the method becomes initially designated 'First Action' and later after a period of operational use, if no problems emerge it is accepted as a 'Final Method'.

For the core mycotoxins such as aflatoxin, ochratoxin, deoxynivalenol and zearalenone there are numerous Official Methods which laboratories may follow. These use immunoaffinity column clean-up and cover a wide range of matrices.

Immunoaffinity column specifications

It should however be noted that not all immunoaffinity columns behave in the same way therefore the use of a reliable immunoaffinity column is vital in ensuring accurate results and can help to reduce the number of samples re-analysed due to poor chromatography and results. It is for this reason, that both CEN and AOAC stipulate specifications that an immunoaffinity column must meet to fulfil the Official Method criteria. The RHONE® line meets all Official Method criteria as detailed in the table below.

Product	Official Method specifications	Official Method reference
AFLARHONE® WIDE (Art no.: P116)	≥80 % to ≤110 % and >100 ng capacity for AFT B1	AOAC: 999.07, 200.16, 2003.02, 2013.05 CEN: 12955, 14123, 16050, 17424
OCHRARHONE® WIDE (Art no.: P119)	≥80 % to ≤110 % and >100 ng capacity	AOAC: 2000.03, 2000.09, 2001.01 CEN: 14132, 14133, 17250, 17251
AFLAOCRARHONE® WIDE (Art no.: P131)	≥80 % to ≤110 % and >100 ng capacity for total AFT and OTA	AOAC: 2008.02
DONRHONE® WIDE (Art no.: P118)	≥80 % to ≤110 % and >1,000 ng capacity	CEN:15891
ZONRHONE® WIDE (Art no.: P141)	≥80 % to ≤110 % and >1,500 ng capacity	CEN:15850

The RHONE® line: balancing cost and performance



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Why choose the RHONE® line and R-Biopharm Rhône



Conveniently supplied in a variety of pack sizes to suit both small and large scale testing requirements and ensuring value for money



The preferred supplier of immunoaffinity columns in proficiency testing rounds

Wide range of application notes for various matrices ensuring optimum results



A company that invests in its staff and is proud to have a high staff retention ensuring consistent service and support from our dedicated team



Outperforms competitor columns



A company who cares about the environment and are proud to be carbon neutral

R-Biopharm Rhône have been suppliers of immunoaffinity columns for mycotoxins for over 35 years and have an excellent track record of supplying quality immunoaffinity columns. We will continue to apply our expertise to extending the range of matrices and products required to make your analysis easy!

You can use a smartphone camera app to download further information on the **RHONE® line**



<https://r-b.io/food>

Product	Format	Art. no.	Pack size
AFLARHONE® WIDE	3 ml immunoaffinity column. Can be used manually or with automated systems.	P116	25, 100, 500
OCHRARHONE® WIDE		P119	25, 100, 500
AFLAOCHRA RHONE® WIDE		P131	25, 100
DONRHONE® WIDE		P141	25, 100
ZONRHONE® WIDE		P118	25, 100

NEW
pack sizes
available to
suit all!

R-Biopharm Rhône contacts:

R-Biopharm Rhône Ltd
Block 10 Todd Campus
West of Scotland Science Park
Acre Road, Glasgow
G20 0XA
Phone: +44 (0) 141 945 2924
E-Mail: marketingsupport@r-biopharmrhone.com



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