

Kasugamycin is widely used as an agricultural fungicide. In this study, kasugamycin added to "brown rice", "orange", and "peanut" extracts was extracted and purified using a mixed-mode polymer solid-phase (InertSep MCX FF) with reference to a method complied with the notification test method of the Ministry of Health, Labor and Welfare. Analysed by LC / MS / MS.



Washing

Elution

Concentration to dryness Made up to

a volumme of 1mL

LC/MS/MS

Purified water 10 mL

Ammonia water / methanol

Methanol

Methanol 10 mL

(1:19) 15 mL

1. Flow Chart of Solid Phase Pretreatment



suffer from clogging or deterioration in liquid permeability.

Dramatically improves liquid permeability.

Test result for collection of the extracted liquid

	Rec (%)	C.V. (%)
Brown rice	99.4	6.2
Orange	95.3	6.4
Peanut	89.7	5.3

2. Measurement Conditions

Example for measurement of standard solution



3. Related Products

[InertSep MCX FF]

Base Gel			
$\left(\begin{array}{c} \\ \\ \\ \\ \\ \end{array}\right)$	Average particle size	:	70 µm
\forall	Surface area	:	480 m²/g
SDB	Pore volume	:	1.1 mL/g
Functional group	Pore size	:	9 nm
—SO 3 ⁻	pH range	:	1~14

[InertSep C18]

HPLC conditions

Column Eluent

: A) B)	0.1 % HCOO CH₃CN	H in H ₂ O		
	Time (min)	A%	В%	
	0.0	20	80	
	5.0	50	50	
	15.0	50	50	

: InertSustain Amide (5 µm, 150 x 2.1 mm I.D.)

Flow rate Column temperature	
Injection Vol. Sample	

:40 °C :LC-MS/MS

:0.3 mL/min

(4000QTRAP: ESI, Positive, SRM) :5 μL

: 1.kasugamycin Q1/Q3=380/112(Quantitation ions)

380/200 (Reference ions)

(100 µg/L)

InertSep MCX FF is a styrenedivinylbenzene polymer (SDB) solid phase modified with a strong cation exchange group. By exerting both a reverse-phase and cation exchange action, basic compounds can be strongly retained, It is extremely effective for the separation of acidic and neutral contaminants. Since the particle size is as large as 70um, it is ideal for biological sample extracts.

Description	Column size	Q'ty/pkg	Cat.No.
InertSep MCX FF	500 mg/20 mL	20 pcs	5010-62704

InertSep C18 is a solid-phase with a non-polar interaction in which octadecyl groups are chemically bonded to silica gel. An advanced end-capping process suppresses the cation exchange interaction of the free silanol groups, resulting in less adsorption of basic compounds. Suitable as a clean-up solid-phase for degreasing in the simultaneous test method for residual pesticides.

Description	Column size	Q'ty/pkg	Cat.No.
InertSep C18	1 g/20 mL	20 pcs	5010-61014

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