

# Determination Solution

## for Chloramphenicol Residues in Shrimp

### – Instruments, consumables



Fotector Plus  
Automated Solid Phase  
Extraction System



AH-50  
Automated Homogenizer



Auto EVA 80  
Automated Parallel Nitrogen  
Evaporator



MPE Pro  
High-Throughput Vacuum  
Parallel Evaporator

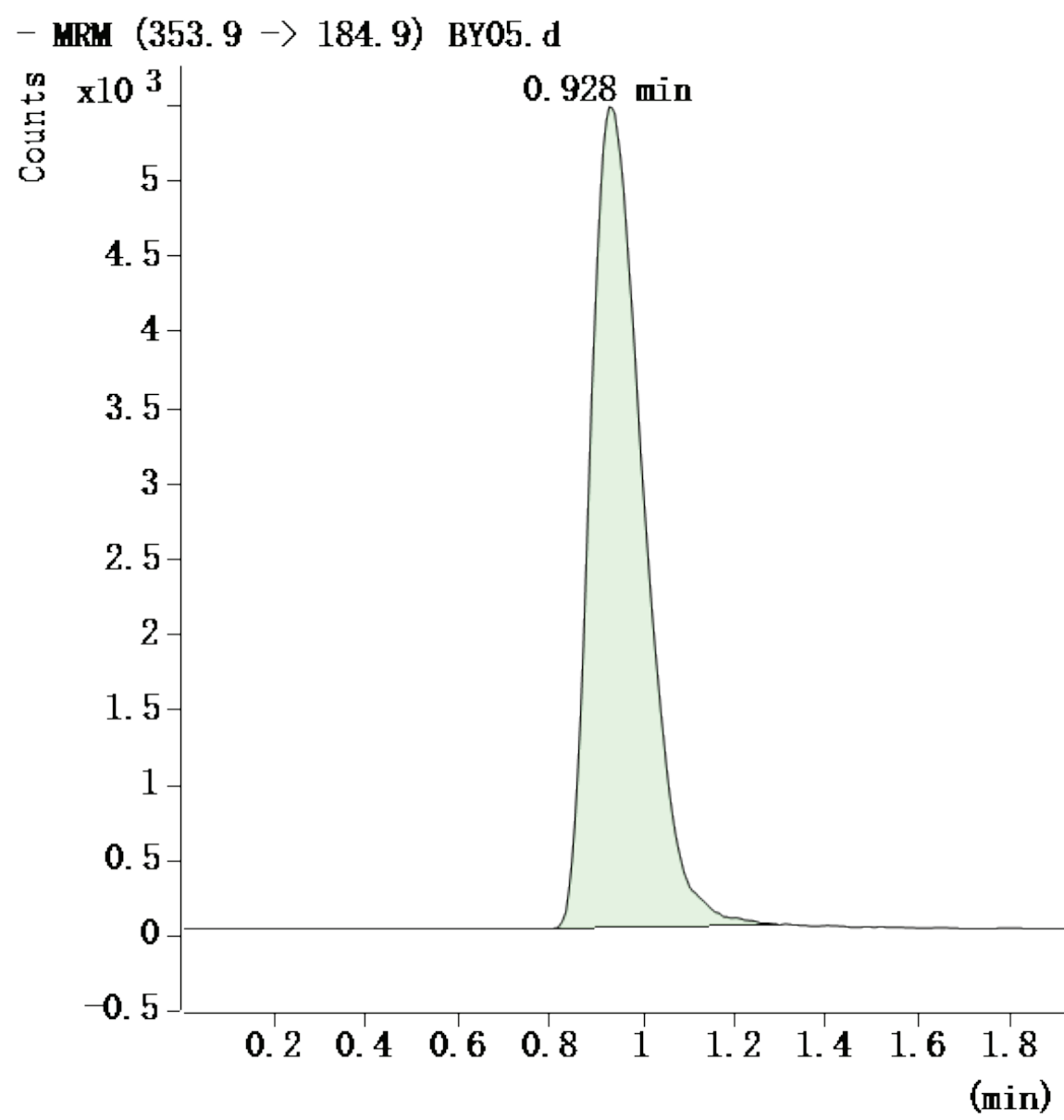
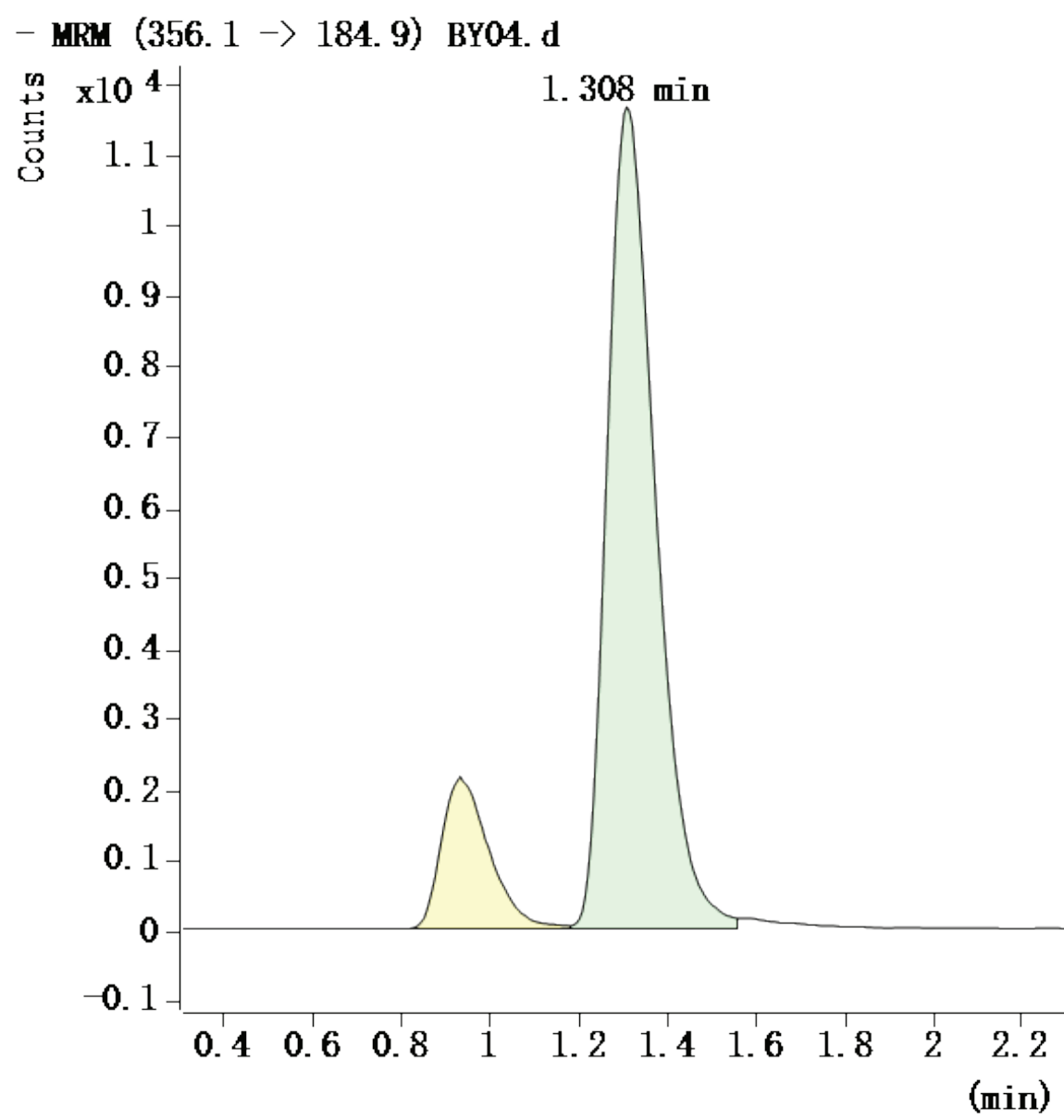
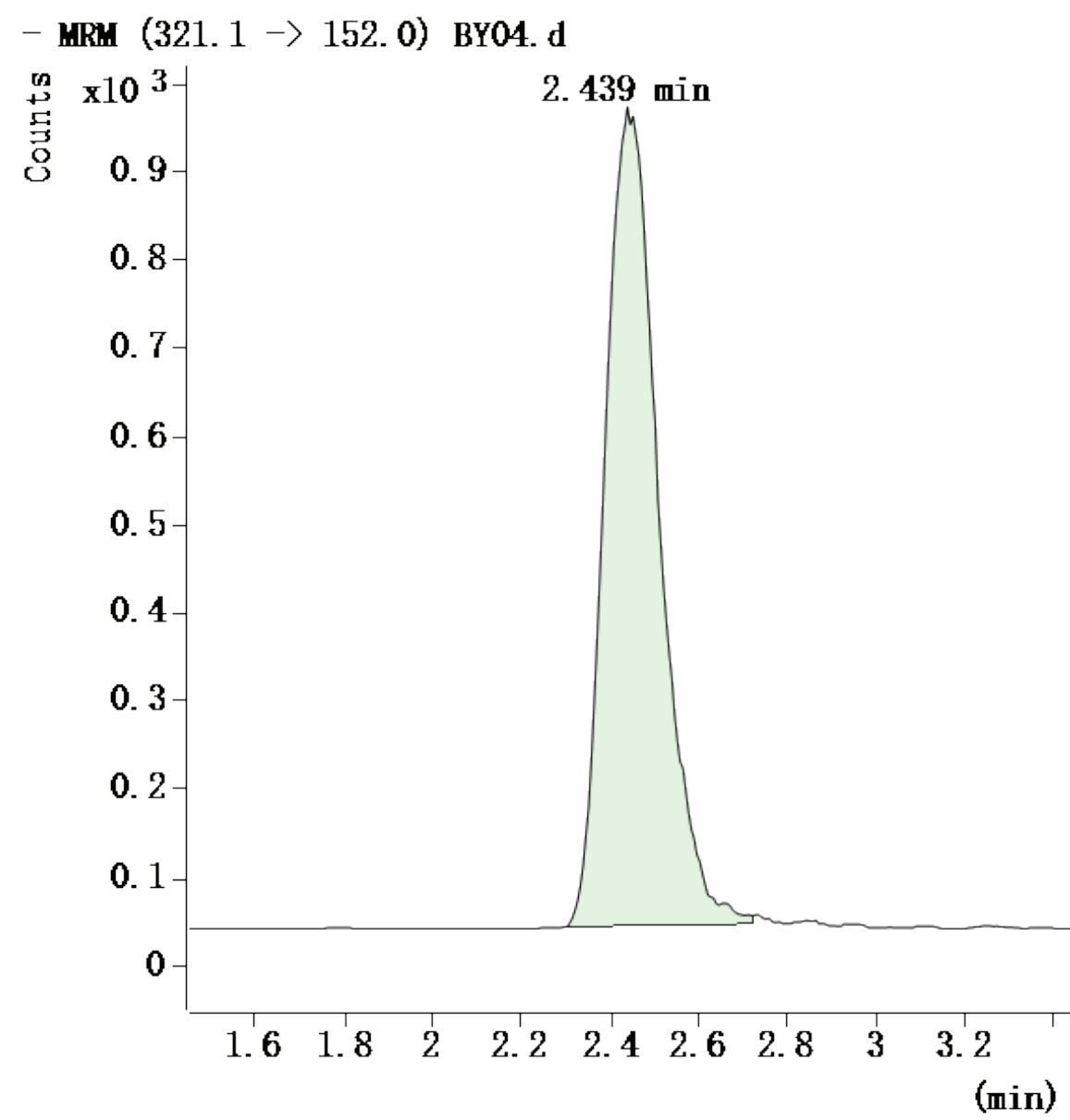
Consumables | RayCure Silica , 500mg/6ml , NO.: RC-204-16844

### – Sample Extraction and Pre-treatment

#### Solid Phase Extraction Purification Conditions

|                      |                                                         |
|----------------------|---------------------------------------------------------|
| Automated SPE System | Raykol Fotector Plus Automated Solid Phase Extraction   |
| SPE Cartridge        | Silica-Based SPE Cartridge (RayCure™ Silica, 500mg/6mL) |
| Washing Solution     | Acetone/n-Hexane (1:9, v/v)                             |
| Elution Solution     | Acetone/n-Hexane (6:4, v/v)                             |

#### Mass Spectra of Three Chloramphenicol Derivatives (5 µg/L, Left - Chloramphenicol, Center - Florfenicol, Right - Thiamphenicol)



### – Method Validation for Feasibility

#### Shrimp Matrix Spiked Recovery Rates and RSD Values

| Name            | Spiking Concentration (µg/kg) | Shrimp Matrix              |              |
|-----------------|-------------------------------|----------------------------|--------------|
|                 |                               | Shrimp Matrix Recovery (%) | RSD (n=4) /% |
| Chloramphenicol | 0.1                           | 88.30                      | 5.6          |
|                 | 1.0                           | 87.18                      | 8.3          |
|                 | 5.0                           | 88.34                      | 6.2          |
| Florfenicol     | 0.1                           | 91.70                      | 7.8          |
|                 | 1.0                           | 82.57                      | 5.9          |
|                 | 5.0                           | 85.54                      | 6.5          |
| Thiamphenicol   | 0.1                           | \                          | \            |
|                 | 1.0                           | 79.93                      | 4.4          |
|                 | 5.0                           | 80.03                      | 7.5          |