

METHOD SUMMARY – QWI-FM0033



Method Title	Campylobacter Jejuni/Coli – Enumeration - AS		
Document number	QWI-FM0033	Date Issued	3 rd December 2019

Method External References	AS 5013.6- 2015 - Food Microbiology – Examination for specific organisms - <i>Campylobacter</i>		
	AS 5013.20-2017 Food Microbiology - Method 20: Preparation of test samples for microbiological examination – Poultry and poultry product surfaces		
Matrix	As listed on NATA Scope		
ALS Department	<input type="checkbox"/> Pharmaceutical Chemistry <input type="checkbox"/> Water Microbiology <input checked="" type="checkbox"/> Food Microbiology <input type="checkbox"/> Pharmaceutical Microbiology <input type="checkbox"/> Food Chemistry		
Accreditation Status	<input checked="" type="checkbox"/> NATA <input type="checkbox"/> NON-NATA <input type="checkbox"/> N/A		
Analysis technique	<input type="checkbox"/> HPLC <input type="checkbox"/> GC <input type="checkbox"/> Wet Chemistry <input type="checkbox"/> Physical <input type="checkbox"/> Gravimetric <input type="checkbox"/> Qualitative <input type="checkbox"/> Pour Plate <input checked="" type="checkbox"/> Spread Plate <input type="checkbox"/> MPN <input type="checkbox"/> Filtration <input type="checkbox"/> Petrifilm <input type="checkbox"/> EHS <input type="checkbox"/> ELISA <input type="checkbox"/> VIDAS UP <input type="checkbox"/> VIDAS <input type="checkbox"/> Other (please specify): _____		
Method Scope	<p>This method describes the steps to enumerate and confirm <i>Campylobacter jejuni/coli</i> from meat, poultry and other foods by using Preston Broth to prepare the initial dilution (without antibiotic supplement) followed by inoculating selective media with the surface spread plate technique.</p> <p>Food samples must be processed rapidly in order to ensure optimum isolation due to its sensitivity to many environmental conditions.</p>		
Method Principle	<p>This test is designed to determine whether a sample complies with established specification for microbiological quality.</p> <p>24.8 to 25 g of sample is mixed thoroughly with 100 mL of enrichment broth (Preston broth) supplemented with <i>Campylobacter</i> growth supplement and lysed defibrinated horse blood but without antibiotic supplement. Then 0.1 mL of the preparation is used to inoculate onto pre-poured plate of Preston agar and Skirrow agar. Plates are then incubated at 42 °C for 48 hours and the number of presumptive <i>Campylobacter</i> colonies are confirmed by means of biochemical reactions such as Oxidase test, Gram stain, antibiotic sensitivity, Hippurate hydrolysis and absence of growth on Blood agar plates at 25 °C aerobically and 37 °C microaerophilically.</p>		
Reporting Unit	Determination of <i>Campylobacter jejuni/coli</i> cfu/g or cfu/mL		
LOR/LOQ	<50 cfu/g or cfu/mL		

Minimum amount of sample required for analysis	50 g	Turnaround time	48 hours
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