METHOD SUMMARY – QWI-FM0110

Method Title	VIDAS UP SALMONELLA (SPT)		
Document number	QWI – FM0110	Date Issued	12th July 2017

Method External References	BioMerieux VIDAS UP Salmonella NF Validation BIO 12/32-10/11
Matrix	As listed on NATA Scope.
ALS Department	□ Pharmaceutical Chemistry □ Water Microbiology ✓ Food Microbiology □ Pharmaceutical Microbiology □ Food Chemistry
Accreditation Status	✓ NATA □ NON-NATA □ N/A
Analysis technique	□ HPLC □ GC □ Wet Chemistry □ Physical □ Gravimetric □ Qualitative □ Pour Plate □ Spread Plate □ MPN □ Filtration □ Petrifilm □ EHS □ ELISA ✓ VIDAS UP □ VIDAS □ TEMPO
Method Principle	VIDAS UP Salmonella (SPT) is an enzyme immunoassay for use on the VIDAS family of instruments for the detection of *Salmonella* antigens using the Enzyme Linked Fluorescent Assay (ELFA) method. The Solid Phase Receptacle (SPR) serves as the solid phase as well as the pipetting device. The interior of the SPR is coated with proteins specific for Salmonella antigens. Reagents for the assay are ready-to-use and pre-dispensed in the sealed reagent strip. All of the assay steps are performed automatically by the instrument. The reaction medium is cycled in and out of the SPR several times. Part of the enrichment broth is dispensed into the reagent strip. The Salmonella antigens present will bind to the interior of the SPR. Unbound components are eliminated during the washing steps. The proteins conjugated to the alkaline phosphatase are cycled in and out of the SPR and will bind to any Salmonella antigens, which are themselves bound to the SPR wall. A final wash step removes unbound conjugate. During the final detection step, the substrate (4-Methyl-umbelliferyl phosphate) is cycled in and out of the SPR. The conjugate enzyme catalyses the hydrolysis of this substrate into a fluorescent product (4-ethyl-umbelliferone). The fluorescence of which is measured at 450 nm.

	At the end of the assay, results are automatically analysed by the instrument, which calculates a test value for each sample. This value then compared to internal references (thresholds) and each result is interpreted (positive, negative). **The Solid Phase Receptacle** The interior of the SPR is coated during production with proteins specific for Salmonella antigens. Each SPR is identified by the SPT code. **The Reagent Strip** The strip consists of 10 wells covered with a labelled, foil seal. The label comprises a bar code which mainly indicates the assay code, kit lot number and expiration date. The foil of the first well is perforated to facilitate the introduction of the sample. The last well of each strip is a cuvette in which the fluorometric reading is performed. The wells in the centre section of the strip contain the various reagents required for the assay
Reporting Unit	Detected/not detected in weight of sample Detected/not detected in swab tested
LOR/LOQ	<1 in 25 g or per x swab(s)

Minimum amount of sample required for analysis	30 g or swabs	Turnaround time	24 hrs

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