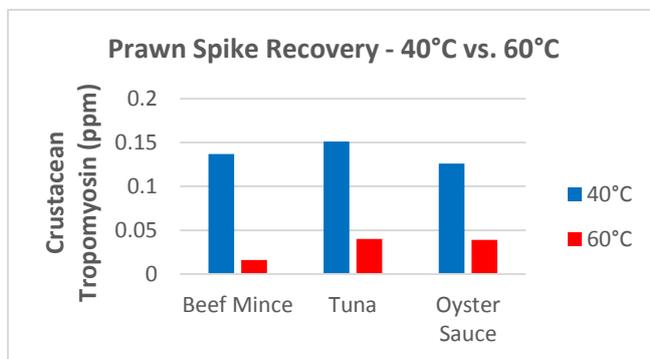


## Technical Note: Use of 40°C Extraction with the ELISA Systems Crustacean Residue Kit

The choice of an extraction method for a food allergen ELISA kit is aimed to give the best results for the broadest range of samples, especially those frequently encountered by customers. The R&D team at ELISA Systems have investigated the extraction conditions for the Crustacean Residue Kit (ESCRU-48) and found that decreasing the extraction temperature to 40°C (from 60°C) to be beneficial for quantitative recovery of crustacean residues in samples such as meats and sauces.

### Improved Recovery of Crustacean Tropomyosin After Extraction at 40°C



Beef mince, canned tuna and oyster sauce were spiked with a cooked prawn extract and the samples were extracted at both 40°C and 60°C. Improved recoveries were seen when the extraction was performed at 40°C. Similar results were obtained when the same samples were spiked with a raw prawn extract (data not shown).

### Excellent Recovery of Crustacean Tropomyosin from a Wide Range of Samples

Nine matrices were spiked at two levels with a crustacean tropomyosin extract and these were extracted at 40°C. All of the matrices tested gave satisfactory results.

Matrix	Recovery (0.10 ppm spike)	Recovery (0.35 ppm spike)
Beef Mince	78%	68%
Chicken Mince	62%	64%
Pork Mince	80%	74%
Canned Tuna	94%	93%
White Sauce	90%	89%
Oyster Sauce	78%	70%
Simmer Sauce	89%	93%
Vegetable Stock	93%	83%
Breadcrumbs	100%	97%

It is important to note that there are no changes to the components used in this kit. A complete revalidation has been performed using the 40°C extraction as the standard procedure. However, it is recommended that user labs perform in-house validation studies to determine the suitability of this method for their samples. ELISA Systems Technical Support is available to answer any questions regarding the use of this kit.