Detection of blood thrombin enzyme in surimi-based products by using polymerase chain reaction (PCR) method

The detection of blood thrombin enzyme presented in eight samples of surimi-based products was investigated by using Polymerase Chain Reaction (PCR) method. Specific primers for chicken (Gallus gallus), cow (Bos taurus) and pig (Sus scrofa) blood thrombin enzyme were designed for positive detection. Two primers for chicken blood which are Gal2 and Gal3 showed 98% and 99% in significant identity of G. gallus coagulation factor II (thrombin) while two primers from cow which are Bos4 and Bos6 showed 100% significant identity of B. Taurus coagulation factor II (thrombin). On the contrary, there were no positive results on pig primers with S. scrofa coagulation factor II (thrombin). PCR amplification with Gal2 and Bos4 primers in surimi-based products showed several positive results while Sus5 primer showed none. Further research should be done to verify the consistency of this result and redesign a specific primer for pig's blood thrombin enzymes is vital in order to guarantee the quality of food products to comply with Halal food guidelines and regulations. © IDOSI Publications, 2012.