

A NEW STANDART EN 14569: MICROBIOLOGICAL SCREENING FOR IRRADIATED FOOD USING LIMULUS AMOEBOCYTE LYSATE - GRAM NEGATIVE BACTERIA PROCEDURES

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LAL/GNB method determines the number of viable Gram negative bacteria present in the test sample and the concentration of bacterial endotoxin present on the surfaces of Gram negative bacteria as lipopolisaccharides (LPS) serving as a measure for the estimation of the amount of total Gram negative bacteria, both viable and dead. The significant difference between to results indicate a treatment of preservation possibly by ionising radiation.

LAL/GNB Microbial screening method comprising of two procedures, which are carried out in paralel. Method permits the identification of an unusual microbiological profile in poultry meat. The presence of a large excess population of dead microorganisms can under ceratin circumstances be presumptive of irradiation treatment, which also means, that the results of the procedure of the determination of endotoxin concentration in the test sample using the *Limulus* amoebocyte lysate (LAL) test and of the procedure of enumeration of of total Gram negative bacteria (GNB) in the

test sample are not radiation specific. Therefore, a standardized reference method for the detection of irradiated food must be used to confirm the positive results.