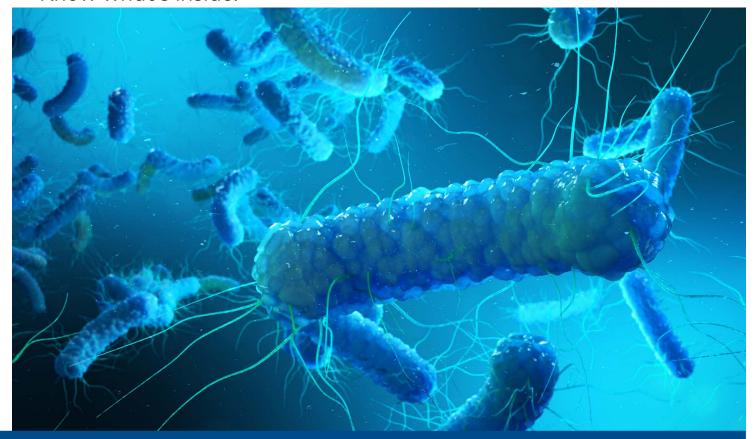


# Know what's inside.



# **GBA GROUP** Salmonella Serotyping



Salmonella is one of the most common pathogens in our food. In order to reduce the number of outbreaks, national agencies test for salmonella throughout the entire supply chain. From the producer to the consumer, there is a monitoring program that complies with European and national legislation.

When the results of a salmonella test are positive, serotyping can determine the distinct variation, for example, Typhimurium, Enteritidis, or Infantis. There are more than 2,500 serotypes known thus far.

In certain cases, serotyping is required by law. For companies that are regularly confronted with salmonella contamination, it can be a useful instrument to help track down the source and research the root cause.

The GBA Group provides you with fast and reliable

salmonella serotyping based on the differences in the DNA sequence between the various salmonella serotypes.

By means of DNA sequencing, more than 300 types can be identified. This enables us to identify the salmonella serotypes that occur most frequently in food products..

Common carriers of salmonella are primarily poultry and pigs, so transmission generally occurs through contact with raw animal products, especially poultry, eggs, and pork. However, other food products such as spices (e.g., paprika and pepper), herbs, nuts, and oilseeds can also be contaminated with salmonella. The serotypes that are most commonly found on live poultry have been validated by ISO 16140-6. This way, we can also report results on live animals in accordance with the legal regulations applicable in various countries.









GBA GROUP Salmonella Serotyping

#### The Technique

The serotyping is conducted by means of DNA sequencing, which is based on a microarray. Each position on the microarray receives a specific DNA marker that corresponds with a specific target DNA sequence.

Spots on the microarray only appear when the DNA matches the markers exactly. Based on which of these markers appear, a pattern is generated that precisely indicates which serotype the salmonella belongs to.

The serotyping is carried out at least once a week.

#### The Benefits

The GBA Group provides you with a solution that helps shed light on the salmonella contamination and improves traceability.

Objective results are guaranteed since the interpretation of the DNA sequences is automated in the database.

#### Accreditation

Lavetan is accredited by BELAC in accordance with ISO 17025 and officially recognized by FASFE (BE) and NVWA (NL).

All of the serotypes listed below are ISO 17025-accredited and AOAC-certified. Serotypes with  $^\circ$  are ISO 16140-6-validated. Serotypes marked with  $^\star$  are OIE-certified.

Cerro °

Chester

Chandans

1,4,[5],12:i:- °\* 4.[51.12:d:-Abaetetuba Aberdeen Abony Adelaide Agma Agona °\* Alachua Albany Altona Amsterdam Anatum ° Augustenborg Banana Bareilly Bergen Berta Blockley Bongori Bovismorbificans Broenderup o Brandenburg ° Bredeney \* Brunei Carno Carrau

Choleraesuis Coeln Colindale Corvallis Cotham Cubana Derby of Dublin \* Duisburg Durban Eastbourne Eboko Emek Enteritidis o\* Fresno Gaminara Gallinarum Gallinarum Gallinarum Pullorum Give o Glostrup Gloucester Goldcast Grumpensis Hada o\*

Haifa Hartford Havana Heidelberg \* Hvittingfoss Ibadan Idikan Indiana °\* Infantis °\* Isangi Janawani Javiana Kapemba Kedougou ° Kentucky Kiambu Kirkee Kisarawe Kottbus Lagos Lexington Lille Litchfield Liverpool Livingstone ° Llandoff London

Manchester Manhattan Matadi Mbandaka o\* Meleagridis Miami Michigan Mikawasima Minnesota ° Monschaui Montevideo \* Muenchen Muenster or Reading Nagoya Napoli Newport \*\* Ohio ° Oranienburg Orion Oslo Quakam Öanama Paraty phi A Paraty phi B\* Paraty phi B var Java o\* Paraty phi C Pomona

Readina Regent Rissen ° Rubislaw Ruiru Saintpul \* Sandiego Schwarzengrund Senftenberg o Sceranga Stanley Stourbridge Taksony Telekebir Tennessee \*\* Thompson Typhi Typhimurium °\* Uaanda Urbana Veneziana Virchow ° Wandsworth Weltevreden Worthington

Yoruba

Poona

#### **Contact GBA GROUP FOOD**

#### GBA Gesellschaft für Bioanalytik mbH

Goldtschmidtstr. 5, 21073 Hamburg, Germany, Phone +49 40 797172-0, service@gba-group.de

### HYGIENICUM® Institut für Mikrobiologie & Hygiene-Consulting GmbH

Robert-Viertl-Str. 7, 8055 Graz-Straßgang, Austria, Phone +43 316 694108 oder +43 664 5115436, office@hygienicum.at

#### JARS S.A

Łajski, Kościelna 2a, 05-119 Legionowo, Poland, Phone +48 22 7831734, sekretariat@jars.pl

## LAVETAN NV

Veedijk 56, 2300 Turnhout, Belgium, Phone +32 14 44 34 74, info@lavetan.be