

Know what's inside.



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.

All of the serotypes listed below are ISO 17025-accredited and AOAC-certified. Serotypes with ° are ISO 16140-6-validated. Serotypes marked with * are OIE-certified.

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

Cerro °
Chandans
Chester
Choleraesuis
Coeln
Colindale
Corvallis
Cotham
Cubana
Derby °
Dublin *
Duisburg
Durban
Eastbourne
Eboko
Emek
Enteritidis °
Fresno
Gaminara
Gallinarum Gallinarum
Gallinarum Pullorum
Give °
Glostrup
Gloucester
Goldcast
Grumpensis
Hada °

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

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

Poona
Reading
Regent
Rissen °
Rubislaw
Ruiru
Saintpul *
San Diego
Schwarzengrund
Senftenberg °
Sceranga
Stanley
Stourbridge
Taksong
Telekebir
Tennessee °
Thompson
Typhi
Typhimurium °
Uganda
Urbana
Veneziana
Virchow °
Wandsworth
Wetevreden
Worthington
Yoruba

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).

For more information regarding our GBA Group sites, please follow the QR Code:

