

## Finding a new serovar of *Salmonella. diarizonde* from Frozen large yellow croaker

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### Abstract

**AIM:** To determine the serumal type of a species of salmonella which was isolated from imported frozen large yellow croaker.

**METHODS:** Aseptically weigh 25 g gill and viscera of the fish into sterile wide-mouth 500 mL jar. Add 225 mL sterile buffered protein broth (BP) and incubate 18-24 h at  $36 \pm 1$  °C. Gently shake incubated sample mixture, and transfer 1 mL to 10 mL selenite cystine broth (SC), add additional 1 mL to 10 mL tetrathionate broth (TTb). Incubate 18-24 h at  $36 \pm 1$  °C. Streak 1 loopful of incubated SC on selective media plates of DHL. Repeat with 1 loopful of incubated TTb and incubate plates 24 h at  $36 \pm 1$  °C. From DHL, pick with needle 3 typical Salmonella colonies-colorless with black centers. Inoculate Ktigger's Iron agar (KIA) and Lysine motility agar (LMA) for screening. Finally they are suggested to be Salmonella. Then apply

biochemical and serological identification tests to 3 presumptive positive samples reexamined by China National Institute for the Control of Pharmaceutical and Biological Products and certified by WHO Collaborating Center for Reference and Research on Salmonella.

**RESULTS:** According to the biochemical reaction, accordance with the characteristics of Salmonella and the ability to utilize malonate, dulcitol negative, ONPG positive, KCN negative *etc.* the specialities can be primarily determined as subgroup III. Basing on the results of serological examinations it can defined as O<sub>50</sub> group. Its H antigen revealed a phase Hz<sub>66</sub>, Z<sub>57</sub>, Z<sub>68</sub>, but the another phase still remained undiscovered. The reexamining result of China National Institute for the Control of Pharmaceutical and Biological Products (checking No. SJKS 961037): Through Gram stain, culture, biochemical and serological examinations this bacterium remained unverified and suggested to send the specimen to WHO Salmonella Central Laboratory for checking up. WHO Collaborating Center for Reference and Research on Salmonella appraised this species as a new serumal type of *Salmonella. diarizonde* with serumal type 50:K:Z<sub>57</sub>:Z<sub>68</sub> NT (checking No. 8687).

**CONCLUSION:** The species of Salmonella was certified to be a newly discovered serovar of Salmonella.

**Key words:** *Salmonella. diarizonde*; New serovar; Frostbite; Croaker

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