

Immunoglobulins Specific to Porcine Blood for Low Cost Halal Detection Method

TECHNOLOGY DESCRIPTION

This innovation is a method to produce monoclonal antibodies specific to porcine blood.

TECHNOLOGY FEATURES

This method produces novel immunoglobulins to heated porcine blood especially porcine plasma and it does not react to other animal bloods (bovine, goat, horse, chicken), meat and non-meat proteins. Thus, the results obtained from this technology is more reliable. The cryopreservation maintains the hybridoma viability and immunoreactivity for many years.

ADVANTAGES

- Cost- maintenance of hybridoma cells is inexpensive
- Reliable result

INDUSTRY OVERVIEW

Prospect Industry: Halal Food Manufacturer/ Regulatory Bodies/ Research

According to a Thomson Reuters report, State of the Global Islamic Economy 2014-2015, the global expenditure of Muslim consumers on food and lifestyle sectors grew 9.5 per cent from previous years' estimates to US\$2 trillion (RM8.3 trillion) in 2013 and is expected to reach US\$3.7 trillion by 2019, at a compound annual growth rate of 10.8 per cent. This invention can be used in new halal detection kit for detection of porcine plasma in food, thereby easing Muslim consumers in avoiding food products that contain porcine plasma. As of 2016, 61.3% of Malaysians are Muslims, making this invention relevant to be marketed at commercial value in Malaysia. There is currently no competition for the immunoglobulins specific to porcine plasma because there are no available IgGs specific to porcine plasma and halal detection kit for detection of porcine plasma in food. Local potential buyers of this invention would be the halal authentication in food (fish- and meat-based products) and animal feed organizations such as the Department of Islamic Development Malaysia (JAKIM) and Department of Chemistry, MOSTI as these institutes are the main bodies in detecting non-halal porcine plasma for halal certification and monitoring. On the international scale, the invention is expected to sell worldwide because the Muslim community is the biggest population in the world, especially in Asia-Pacific countries. The intended market by industry would be halal laboratory services, research industries and halal regulatory agencies.



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