

Sensitivity

90.55 % to 115.70 %

(n = 9)

Response rate

 $R^2 = 0.9187$ 

(n = 3)

## A Novel Globotriaosylceramide Quantification Assay for the Rapid Diagnosis of Fabry Disease

Allan Wee Ren NG, Kumaran NARAYANAN\*

School of Science, Monash University Malaysia, Jalan Lagoon Selatan, 47500 Subang Jaya, Selangor, Malaysia. \*Corresponding author e-mail: kumaran.narayanan@monash.edu

## **RESEARCH HIGHLIGHTS**

- Current diagnostic approach for Fabry disease is insensitive, low-throughput, and costly.
- Using rat anti-human Gb<sub>3</sub> monoclonal antibody, a novel Gb<sub>3</sub> quantification assay has been developed in this study.
- Accuracy, precision, and sensitivity of the novel assay was verified using crude cellular lipid extracts.
- The novel assay serves as a cost-effective and rapid approach for the diagnosis of Fabry disease.



25

20

15

10 5

Fabry

Fabry

skin fibroblast B-lymphocyte skin fibroblast

Healthy

පි

Gb<sub>3</sub> (green) in healthy

skin fibroblast

- human cell lines.
- Further studies can be done on quantifying Gb<sub>3</sub> using human biological samples.

## **REFERENCES**

