

### Usage Guidelines:

- Prepare master mix by combining supplied rapid hydrolysis buffer, internal standard, and enzyme solution.
- Add the master mix to the urine sample and mix solution.
- **DO NOT VORTEX.**
- Incubate at 50-60 °C.

### Content and Storage Guidelines:

The enzyme is stable at 2-8 °C. Refer to the Certificate of Analysis and bottle label for the specific lot expiry. The enzyme is supplied in a proprietary formulation designed to ensure long-term stability under recommended storage conditions. **Dilution may reduce shelf-life and is not recommended. Do NOT exceed three freeze-thaw cycles.**

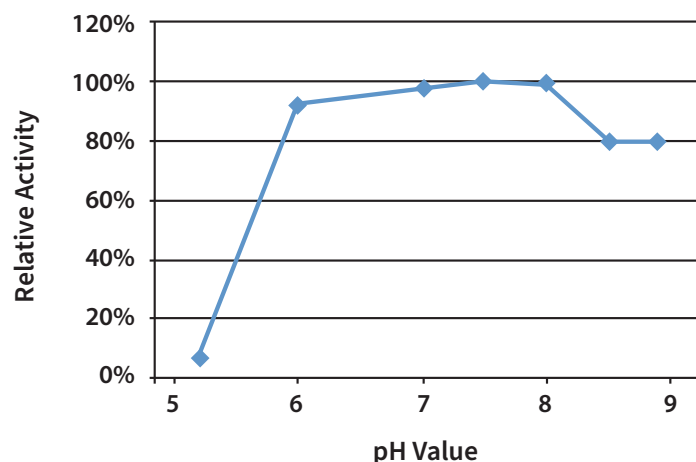
### Rapid Hydrolysis Buffer (RHB):

Rapid Hydrolysis Buffer is sterile filtered and is to be used with the enzyme to obtain optimal pH. It is stable at 2-30 °C. Refer to the Certificate of Analysis and bottle label for the specific lot expiry.

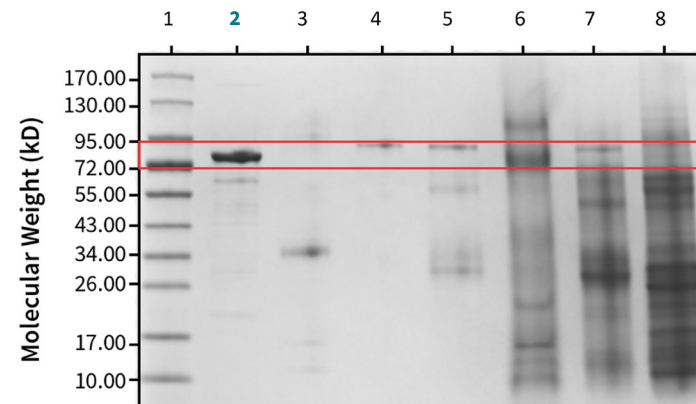
### Product Sterility:

IMCS products undergo strict quality control to ensure product sterility. The product can become contaminated if mishandled. Follow aseptic technique to avoid contamination.

### Optimal pH Range:



### Enzyme Purity:



SDS-PAGE image showing  $\beta$ -glucuronidase band (between 72-95 kDa marker) in each enzyme preparation. The total amount of enzyme loaded to each lane was 2  $\mu$ L.

Lane 1: Broad range molecular weight ladder

**Lane 2: IMCSzyme (>50,000 units/mL)**

Lane 3: Pure Limpets (>100,000 units/mL)

Lane 4: Purified Abalone (>100,000 units/mL)

Lane 5: Purified Abalone (>50,000 units/mL)

Lane 6: Crude Snail (>100,000 units/mL)

Lane 7: Crude Abalone (>100,000 units/mL)

Lane 8: Crude Limpets (>100,000 units/mL)

<sup>1</sup>Zhang X, Sitasuwan P, Horvath G, Yang J, Nie Y, Marinova M, Lee LA, Wang Q. (2018). Increased activity of  $\beta$ -glucuronidase variants produced by site-directed mutagenesis. *Enzyme Microb Technol.* 109. 20-24.

### Contact and Support:

For questions, concerns or technical support please contact us:

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**Business Hours:** Monday-Friday from 9 a.m. - 5 p.m. EST.

**Certificate of Analysis and Safety Data Sheets** are available under “resources” at: [www.imcstips.com](http://www.imcstips.com).

### Product Warranty & Satisfaction Guarantee

IMCS warrants that this product conforms to the information contained in this publication at the time of the quality test date. The same efficient enzymatic hydrolysis result cannot be guaranteed without the use of the supplied buffer. **For R&D use only. Not for drug, household, or other use.**