

### Usage Guidelines:

- Prior to reconstitution, bring the bottle to room temperature.
- Add 2 mL of ultrapure water (Type 1, 18.2 M $\Omega$ .cm) to the bottle to obtain 1 mg/mL.
- Close the cap and gently swirl the bottle to reconstitute the enzyme. **DO NOT VORTEX.**
- Allow the bottle to sit at room temperature (20-25 °C) for 15 minutes.
- The hydrolysis efficiency is optimal between 40-60 °C.
- The enzyme is stable in up to 20% methanol and 10% acetonitrile.
- 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.
- Incubate at 50-60 °C.

### Content and Storage Guidelines:

#### Lyophilized Enzyme:

The lyophilized enzyme includes a patent pending stabilizer containing sodium azide for increased stability. When reconstituted with 2 mL of water, the final azide concentration is 0.02%. Lyophilized enzyme is stable in its original sealed package at 2-8 °C for up to 12 months.

#### Reconstituted Enzyme Solution:

Reconstituted enzyme solution should be stored at 2-8 °C. **Do NOT freeze the enzyme solution.** Avoid exposure to direct light and avoid multiple warming and chilling cycles.

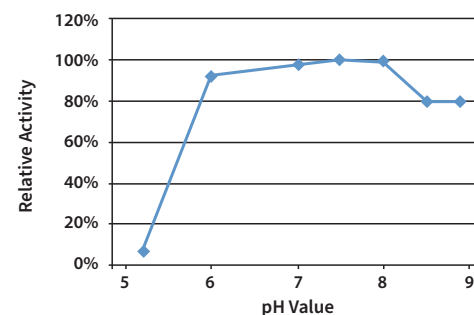
#### Rapid Hydrolysis Buffer:

Rapid Hydrolysis Buffer is sterile filtered and is to be used with the enzyme solution to obtain optimal pH. It is stable at 2-30 °C for up to 12 months in its original sealed package.

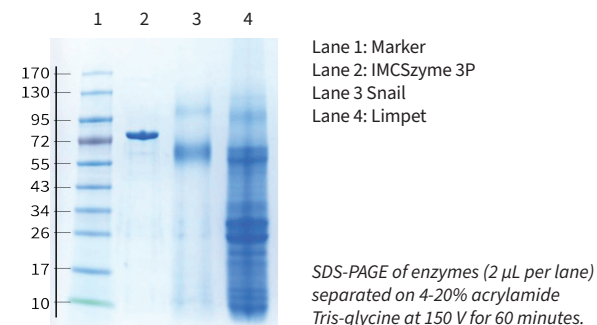
#### Product Sterility:

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:



<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.**