



## Beta Glucuronidase Protocol

Scope: Beta Glucuronidase from Abalone is the superior reagent for hydrolysis of glucuronides for the following drugs of abuse- opiates, benzos and THC.

### I. Preparation of Solution:

$\beta$ -Glucuronidase, from abalone, 5,000 Fishman units/mL from lyophilized powder:

Dissolve 100,000 Fishman units lyophilized powder with 20 mL 100 mM acetate buffer (pH 5.0).

Storage: 0°C in plastic. Stability: Several days; Prepare daily for best results.

$\beta$ -Glucuronidase, from abalone, 5,000 Fishman units/mL from solution:

Dissolve 1ml of  $\beta$ -Glucuronidase solution containing 100,000 Fishman units lyophilized with 20 mL 100 mM acetate buffer (pH 5.0). Storage: 0°C in plastic. Stability: Several days; Prepare daily for best results.

### II. Prepare sample - Enzymatic Hydrolysis of Beta Glucuronides:

To 2 mL of urine add internal standard(s) and 1 mL of  $\beta$ -glucuronidase solution.

The  $\beta$ -glucuronidase solution prepared above contains: 5,000 Fishman units/mL in 100 mM acetate buffer (pH=5.0).

Mix/vortex.

Hydrolyse for 3 hours at 37°C.

#### General $\beta$ -Glucuronidase Hydrolysis Reaction



#### $\beta$ -Glucuronidase Hydrolysis Reaction for Morphine 3- $\beta$ -glucuronide

