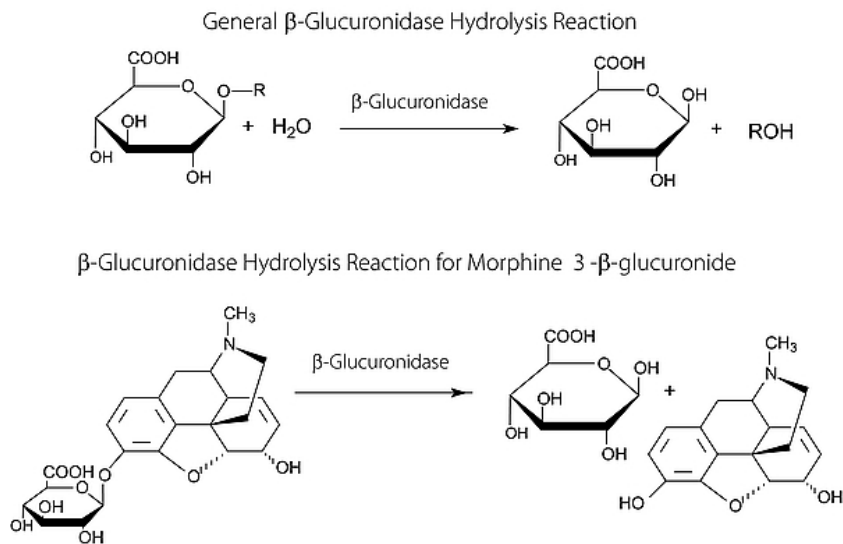


Why is Selectrazyme[®] β –Glucuronidase derived from red abalone (*Haliotis rufescens*) needed in everyday sample prep?

- In the body's attempt to eliminate xenobiotics, glucuronidation occurs, where the drug is conjugated with glucuronic acid by the human UDP-glucuronosyltransferase family of enzymes. Similar conjugation reactions occur with isoforms of sulfotransferases yielding the sulfate conjugate.
- The glucuronides formed are more polar (water soluble) than the parent compound (original drug) and are generally excreted via the kidney into urine.
- For proper detection of the parent compound and phase 1 metabolites, hydrolysis may be required. This technique is therefore frequently applied to biological fluids, primarily urine.
- Selectrazyme[®] β -Glucuronidase catalyzes hydrolysis of β-D-glucuronic acid allowing for the determination of total drug concentration versus solely free drug concentration(s).

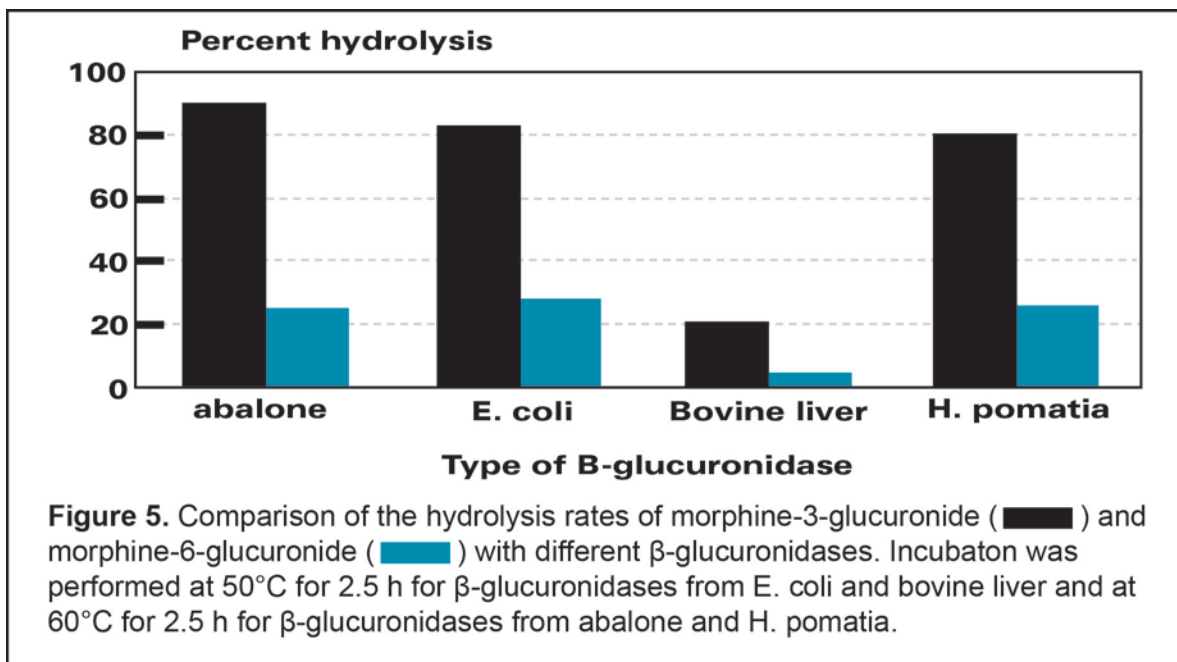


Benefits to Hydrolyzing with Selectrazyme[®] β -Glucuronidase

1. Cleaner extracts
2. Stability of analytes due to mild hydrolysis conditions
3. Minimum artifacts present in extracts

Comparing Efficiency of Various Sources of Enzyme

Journal of Analytical Toxicology, Vol. 19, May/June 1995



Hydrolysis using Selectrazyme[®] β -Glucuronidase results in a sample solution containing a significant amount of solubilized enzyme. If not effectively eliminated, this material can accumulate on the head of a guard or analytical column; significantly increasing column backpressure and reducing column lifetime. Strongly consider using SPE prior to analytical injection to not only prolong the life of your HPLC column, but also to produce the cleanest, most accurate results.