



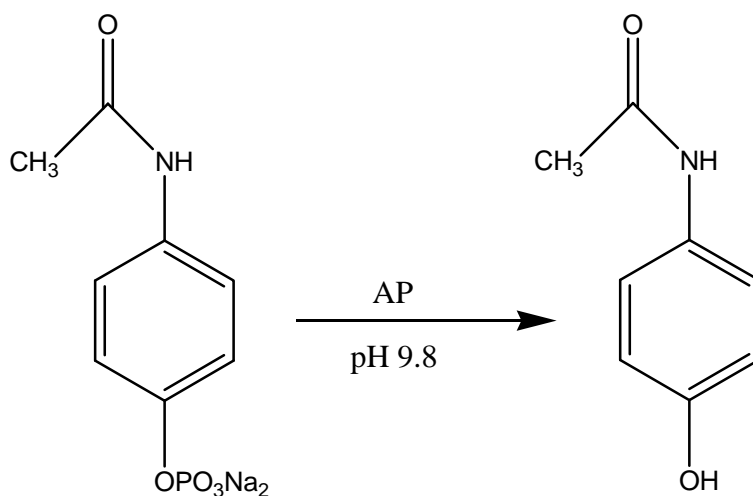
## ***Phosphorylated Paracetamol***

(ref. PPAR)

*DropSens* launches *Phosphorylated Paracetamol* (PPAR).

Phosphorylated Paracetamol is intended for its use as electrochemical substrate of Alkaline Phosphatase (AP). This reagent generates electrochemically active *Paracetamol* as the product after its hydrolysis. Voltammetric and amperometric measurements can be easily carried out for the quantification of *Paracetamol* in affinity assays using the PPAR/AP detection system.

### **Enzymatic reaction of PPAR**

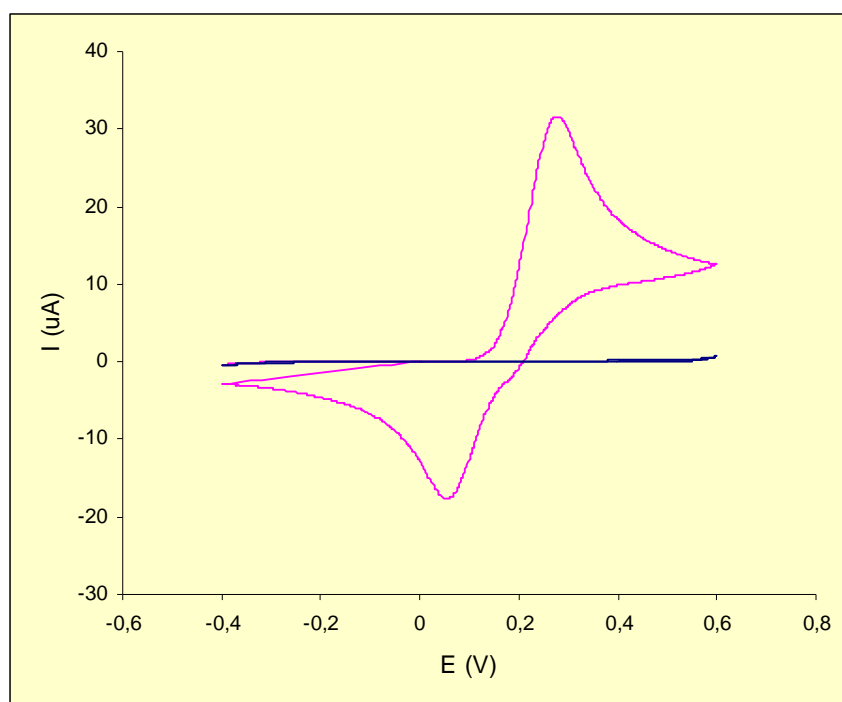


The use of PPAR, instead of other AP substrates, results in lower LODs, wider linear ranges and a simpler methodology for the detection of the enzymatic product. Moreover the applied potential for oxidation of *Paracetamol* is lower than the potential for oxidation of other AP substrates hydrolysis products, which reduces the number of potential interferences able to be oxidised at the electrode surface.



## Electrochemical behaviour of *Phosphorylated Paracetamol* and *Paracetamol* using DRP-110 screen-printed carbon electrodes.

Cyclic voltammetry of the hydrolysis product at the surface of screen-printed carbon electrodes shows well-defined oxidation and reduction peaks. Furthermore the  $\Delta E_p$  value indicates that the electrode reaction is quasi-reversible.



Cyclic voltammogram of 3,5 mM PPAR(—) and 3,5 mM PPAR + Alkaline Phosphatase (—) in 0.1 M Tris-HNO<sub>3</sub>, 20 mM Mg(NO<sub>3</sub>)<sub>2</sub>, pH 9.8 electrolyte solution at 50 mV/s.

PPAR should be stored between 2 and 8 °C, under a N<sub>2</sub> atmosphere and away from light.



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**Further information is available upon request**