

# Biphasic Dissolution

## A step towards physiological relevance in dissolution studies

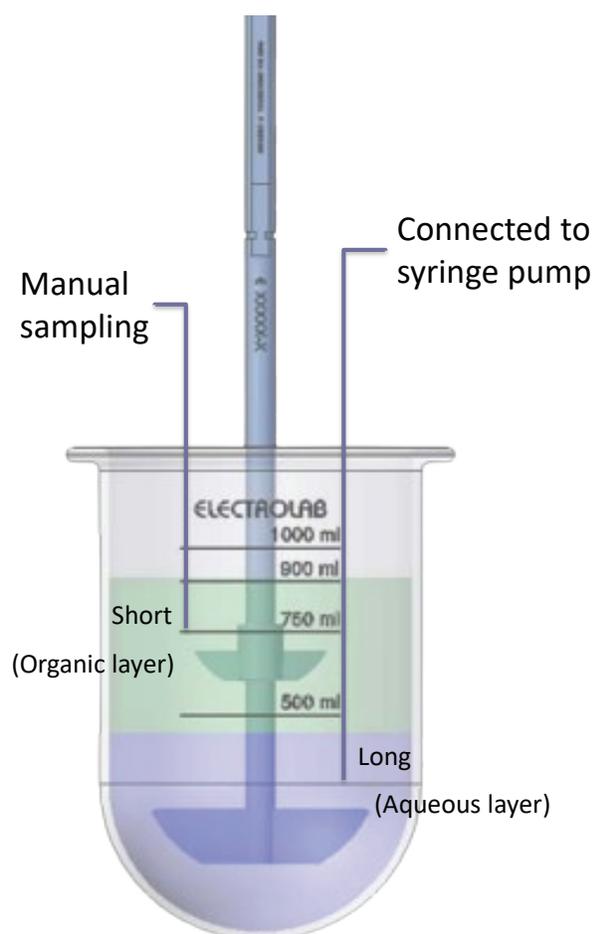
- Aim of in-vitro release testing is to predict the behavior of the drug under physiological conditions. i.e. inside the body.
- A dissolution method should be able to predict and differentiate between good and bad formulations especially during product developmental stage
- But conventional dissolution testing methods sometimes lack:
  - Discriminatory power
  - Ability to simulate aspects of in vivo dissolution

## Biphasic Dissolution

This dissolution is carried out in presence of two immiscible liquids, where lower layer is aqueous and upper layer is organic. As the API dissolves in the aqueous medium, it partitions in the organic layer based on its log P value. The organic layer acts as a reservoir to hold the dissolved drug. The API dissolution as well as partitioning can be determined.

## Applications

- Used to overcome sink condition limitations that arise in conventional dissolution testing of poorly soluble API
- Aids to discriminate between the excipient and manufacturing method
- Predict concurrent dissolution and drug absorption
- IVIVC establishment



Part No : 1401A00077



- Specialized paddle- Main paddle (for aqueous layer) with height adjustable mini paddle (for organic layer)
- Movable mini paddle helps perform range of applications requiring different media volumes (both aqueous and organic)