transferred directly into eppendorf tubes, and kept in freezer at -20°C till HPLC analysis. Care was taken throughout the experiment to avoid disturbance in the circulatory system, and the exposed intestinal segments were kept moist with body tempered saline (37 °C) .

2.2.8 GlcN effect on PRN absorption by Everted rat intestinal sac (ERIS)

A simulated physiological solution, Krebs buffer, was prepared by mixing the following volumes (in ml) of 1 M: NaCl 118, KCL 4.5, KH_2PO_4 1.2, $NaHCO_3$ 25, $MgSo_4$ 1.6, Glucose 5.5, $CaCl_2$ 2.5 and 0.25 ml of 0.1 M EDTA, the volume was completed to 1 L by distilled water then the buffer was oxygenated with oxygen concentrator. $CaCl_2$ was added after oxygenation to prevent turbidity, and then the pH was adjusted to 7.4 using 1M HCl (0.08 mg/ml). Krebs buffer is known to be a physiological solution that helps in maintaining intracellular and extracellular osmotic balance. Moreover, glucose serves as an energy source of the cell.

Three PRN solutions were prepared by dissolving 10 mg PRN in 100 ml Krebs buffer to obtain a final concentration of 0.1 mg/ml, whereas two soaking solutions were prepared by dissolving 100 mg GlcN, and 1 mg sodium lauryl sulphate (SLS) in two of PRN solutions prepared to give a final concentration of 1 and 0.01 mg/ml, respectively.

SLS is known to be an anionic surfactant that is used as an emulsifier (Lee and Maibach 2006). SLS is used to improve the absorption of many drugs, such as acyclovir due to its ability to enhance the permeability of mucoadhesive tablets of acyclovir, thus enhance its bioavailability (Dias *et al.* 2010).

Fasting male rats were killed by high dose of inhaled ether. The small intestine was removed and washed by Krebs buffer then placed in oxygenated Krebs buffer at 37 °C. The