ABSTRACT

VALIDATION SPECTROPHOTOMETRY UV-Vis METHOD FOR DETERMINING CONCENTRATION OF PARACETAMOL AND PIROXICAM IN MIXED

Mila Kusuma Wardani

Paracetamol can be combined with piroxicam in ratio 16:1. Analitical problems from this combination were the difference of concentration, solubility, and matrix effect in measurement. Spectrophotometry UV-Vis method for determining concentration of paracetamol and piroxicam in mixed has been developed. Parameters of validation were selectivity, linierity, accuracy, and precision according to USP guideline. Tablets simulation was disolved in methanol. Parasetamol and piroxicam were determined using triple wavelength technic and individual absorption, respectively. Analitical wavelength for paracetamol were 233.5, 248.5, and 263.5 nm, then for piroxicam was 349 nm. The linierity factors, such as coefficient of correlation (r) and relative residual standard deviation (Vxo) for paracetamol and piroxicam were 0.9999 and 1.46% (n=5, $p<0.01$), 0.9992 and 1.49% (n=5, $p<0.01$), respectively. The assay and recovery studies showed paracetamol and piroxicam in range 98-102% were obtained at with % RSD $\leq$ 2%. The procedures were successfully applied for determination of substances and full filled the parameters of validation.

Keywords : paracetamol, piroxicam, method validation, spectrophotometry UV-Vis

.