



TLC Densitometric Fingerprint Development and Validation of 6-Gingerol as Marker in Poly-Herbal Ayurvedic Formulations

Shukla S. SHANKAR, Saraf SWARNLATA & Saraf SHAILENDRA*

University Institute of Pharmacy, Pt. Ravishankar Shukla University,
Raipur, Chhattisgarh, India. PIN-492010

SUMMARY. The poly herbal formulations containing ginger are widely used for different medicinal properties. The present paper deals with the development of densitometric method for fingerprint of ginger mainly using 6-gingerol in the form of densitogram following charring of the chromatographic as internal standard that could be useful for marker-based quality assurance of the poly herbal products containing *Zingiber officinale*. The fast rapid and reproducible method was developed. The accuracy of method was validated by analysis of spiked blank and standard addition samples and precision by performing replicate analyses on a single day and on different days. Recoveries from spiked blank and standard addition sample were 98.03-99.47 %. Repeatability for sample, each of which was analyzed six times on a single plate, was 0.001903 % relative standard deviation. The intra and inter precision was 0.001242 and 0.010676 % relative standard deviation for a sample analyzed in duplicate once per plate on same day and the different days over a seven-day period. The content of 6-Gingerol was found to be 0.698 ± 0.000577 , 0.689 ± 0.002 , 0.687 ± 0.001528 mg/g in lab formulations. The method was shown to be simple, precise and accurate suitable for routine analysis of 6-Gingerol at different levels from raw material to finished formulations.

KEY WORDS: Ayurvedic formulation, Densitometry, Fingerprint, 6-Gingerol, HPTLC

* Author to whom correspondence should be addressed. E-mail: shailendrasaraf@rediffmail.com