# A New Green Fluorimetric Micelle Complexation Approach for Reduction of the Consumed Solvent and Quantification of Avapritinib in Biological Fluid 

Baher I. Salman ${ }^{1 *}$, Hany A. Batakoushy ${ }^{2}$, Roshdy E. Saraya ${ }^{3}$, Mohamed A. A. Abdel-Aal ${ }^{4}$, Adel Ehab Ibrahim ${ }^{5}$, Yasser F. Hassan ${ }^{1}$, Ahmed I. Hassan ${ }^{1}$ and Ehab A.M. El-Shoura ${ }^{6}$<br>${ }^{1}$ Pharmaceutical Analytical Chemistry Department, Faculty of Pharmacy, Al-Azhar University, Assiut Branch, Assiut, 71524, Egypt; bahersalman@azhar.edu.eg, bahersalman2013@yahoo.com<br>${ }^{2}$ Pharmaceutical Analytical Chemistry Department, Faculty of Pharmacy, Menoufia University, Shebin Elkom, 32511, Egypt<br>${ }^{3}$ Pharmaceutical Analytical Chemistry Department, Faculty of Pharmacy, Port-Said University, Port Said 42511, Egypt.<br>${ }^{4}$ Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Al-Azhar University, Assiut Branch, Assiut, 71524, Egypt.<br>${ }^{5}$ Natural and Medical Sciences Research Center, University of Nizwa, P.O. Box 33, Birkat Al Mauz, Nizwa 616, Oman.<br>${ }^{6}$ Department of Clinical Pharmacy, Faculty of Pharmacy, Al-Azhar University, Assiut Branch, Assiut, Egypt 71524

*Corresponding author: Baher I. Salman, bahersalman@azhar.edu.eg


Figure S1: The Chemical structure of AVA.


Figure S2: Effect of types of buffer for estimation of AVA (200 $\mathrm{ng} \mathrm{mL}^{-1}$ ) with $2 \%$ SDS.


Figure S3: Effect of volume of phosphate buffers ( pH 4 ) for estimation of AVA (200 ng $\mathrm{mL}^{-1}$ ) with $2 \%$ SDS.


Figure S4: Effect of diluting solvents on RFI for estimation of AVA ( $200 \mathrm{ng} \mathrm{mL}^{-1}$ ) with 2\% SDS.

Table S1: Applicability of the green method using content uniformity test.

|  | \% Labeled claim |
| :--- | :--- |
| Tablet No. | Ayvakit® ${ }^{\circledR} 100 \mathrm{mg}$ <br> tablets |
| 1 | 100.22 |
| 2 | 101.30 |
| 3 | 101.00 |
| 4 | 100.55 |
| 5 | 101.78 |
| 6 | 101.90 |
| 7 | 99.74 |
| 8 | 99.98 |
| 9 | 102.19 |
| 10 | 100.12 |
| Mean | 100.88 |
| SD | 0.67 |
| RSD | 0.66 |
| Acceptance value (AV)* | 1.61 |
| Max. allowed AV (L1)* | 15 |

* Acceptance value= $2.4 \times$ SD

