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. Batakoushy², Roshdy E. Saraya³, Mohamed A. A. Abdel-Aal⁴, Adel Ehab Ibrahim⁵, Yasser F. Hassan¹, Ahmed I. Hassan¹ and Ehab A.M. El-Shoura⁶

- ¹ Pharmaceutical Analytical Chemistry Department, Faculty of Pharmacy, Al-Azhar University, Assiut Branch, Assiut, 71524, Egypt; <u>bahersalman@azhar.edu.eg</u>, <u>bahersalman2013@yahoo.com</u>
- ² Pharmaceutical Analytical Chemistry Department, Faculty of Pharmacy, Menoufia University, Shebin Elkom, 32511, Egypt
- ³ Pharmaceutical Analytical Chemistry Department, Faculty of Pharmacy, Port-Said University, Port Said 42511, Egypt.
- ⁴ Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Al-Azhar University, Assiut Branch, Assiut, 71524, Egypt.
- ⁵ Natural and Medical Sciences Research Center, University of Nizwa, P.O. Box 33, Birkat Al Mauz, Nizwa 616, Oman.
- 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

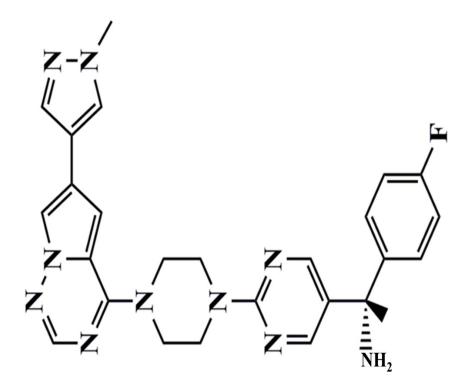


Figure S1: The Chemical structure of AVA.

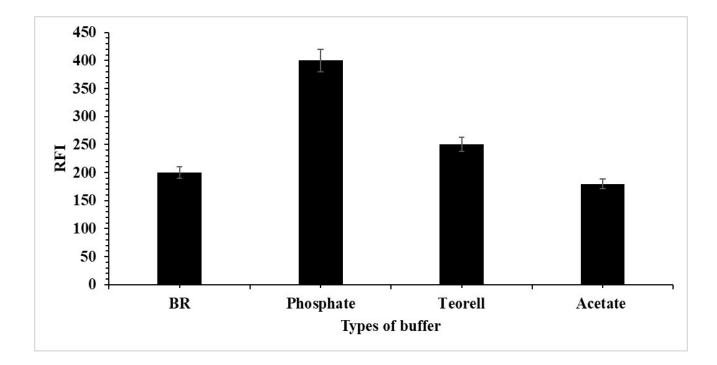


Figure S2: Effect of types of buffer for estimation of AVA (200 ng mL⁻¹) with 2 % SDS.

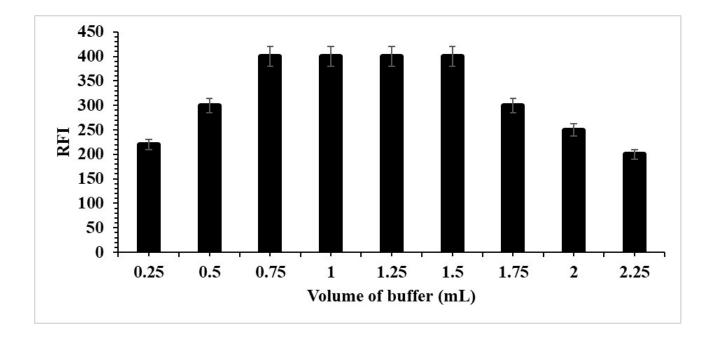


Figure S3: Effect of volume of phosphate buffers (pH 4) for estimation of AVA (200 ng mL^{-1}) with 2 % SDS.

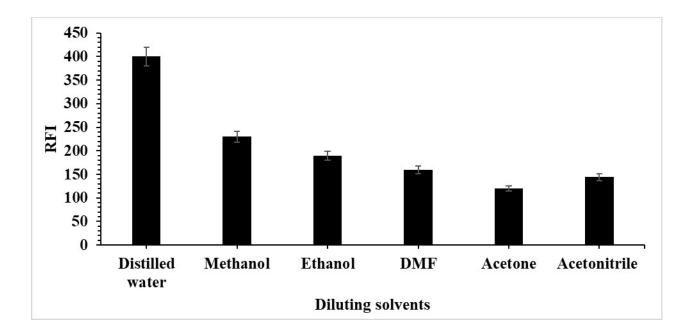


Figure S4: Effect of diluting solvents on RFI for estimation of AVA (200 ng mL⁻¹) with 2% SDS.

Tablet No.	% Labeled claim Ayvakit [®] ® 100 mg tablets
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

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

* Acceptance value= 2.4 x SD