

# CoreFocus Report

No.24

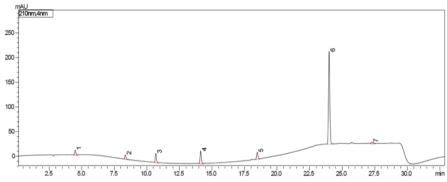
LC Reversed-phase Shim-pack<sup>™</sup> Series

## Shim-pack Scepter<sup>™</sup> C18-120

## Analysis of 4-chloro-7-tosyl-7H-pyrrolo-[2,3-**D]pyrimidine in Tofacitinib Citrate Tablets**

Keywords: Tofacitinib Citrate Tablets, Janus kinase (JAK) inhibitor

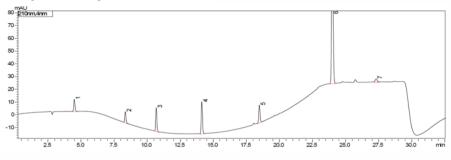
## Chromatogram of Standard Mix



- 1. Impurity C5
- 2. Impurity F 3. Impurity C4
- 4. Impurity D 5. Impurity H
- 6. 4-chloro-7-tosyl-7H-pyrrolo [2,3D] pyrimidine 7. Impurity G

- Standard Mix Impurity C5, C4, F, D, H, G) (1.0g/mL in Acetonitrile ) 4-chloro-7-tosyl-7H-pyrrole [2,3D] pyrimidine (10mg/mL in Acetonitrile)

### Enlarged Chromatogram of Standard Mix



### Pretreatment procedure

- a. Measure the above-mentioned standard solution.
- b. Add diluent 25% Methanol water to dilute to a concentration of 4-chloro-7-tosyl-7H-pyrrole -[2,3-D]pyrimidine 0.5 mg/mL and other various Impurity
- 0.005 mg/mL mixed solution. c. Shake well

: Shim-pack Scepter C18-120 (250 mm x 4.6 mm I.D., 5 µm) P/N: 227-31020-06 Column

Mobile phase : A) 0.1% Phosphoric acid aqueous solution

B) Acetonitrile: Methanol = 1:1

B Conc. 15% (0.0 min)  $\rightarrow$  78% (18.0min - 23.0 min)  $\rightarrow$  15% (23.1min - 33.0 min) Gradient program

: 1.0 mL/min Flow rate Column temp. : 35°C Injection vol. 10 μL

LabTotal<sup>TM</sup> Vial for LC/LCMS, P/N: 227-34001-01 Vial

Detection : UV at 210 nm

CoreFocus, Shim-pack, Shim-pack Scepter and LabTotal are trademarks of Shimadzu Corporation or its affiliated companies in Japan and/or other countries.

## Shimadzu Corporation www.shimadzu.com/an/

### For Research Use Only, Not for use in diagnostic procedures,

This publication may contain references to products that are not available in your country. Please contact us to check the availability of these products in your country.

The content of this publication shall not be reproduced, altered or sold for any commercial purpose without the written approval of

Company names, products/service names and logos used in this publication are trademarks and trade names of Shimadzu Corporation, its subsidiaries or its affiliates, whether or not they are used with trademark symbol "TM" or "®".

Third-party trademarks and trade names may be used in this publication to refer to either the entities or their products/services, whether or not they are used with trademark symbol "TM" or "®".

Shimadzu disclaims any proprietary interest in trademarks and trade names other than its own

The information contained herein is provided to you "as is" without warranty of any kind including without limitation warranties as to its accuracy or completeness. Shimadzu does not assume any responsibility or liability for any damage, whether direct or indirect, relating to the use of this publication. This publication is based upon the information available to Shimadzu on or before the date of publication, and subject to change without notice.