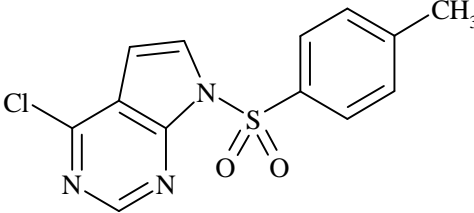


Certificate of Analysis

Certificate No.: **20150303E**

Date: March 3, 2015

Retest date: March 2018

Compound Name: Tofacitinib Impurity R		
TLC Catalogue Number:	T-117031	
CAS Number	479633-63-1	
Molecular Weight:	307.76	
Molecular Formula:	C ₁₃ H ₁₀ ClN ₃ O ₂ S	
Source:	TLC Pharmaceutical Standards	
Source Lot No.:	1879-036A2	
Storage Conditions:	Store at 2-8 °C.	

Test Description	Specifications	Results
Visual Description	White to off-white solid	Conforms
Identification		
MS	Conforms to structure	Conforms
¹ H NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 98.0%	99.9%
Recommendation:	Released.	

Name	Department	Signature	Date
Reviewed and approved by:	Analytical Services		
Approved by:	Quality Assurance		

Attachments: HPLC, MS and NMR spectra.