

Supporting Information

**Stability-indicating study of Iguratimod: Isolation and characterization of potential degradant
using Preparative HPLC-MS, LC-HRMS, and NMR techniques**

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UV Confirmation of maximum wavelength

With the help of UV-Spectrophotometer (SHIMDZU-2600), λ_{max} of IGRD confirmed for further HPLC analysis.

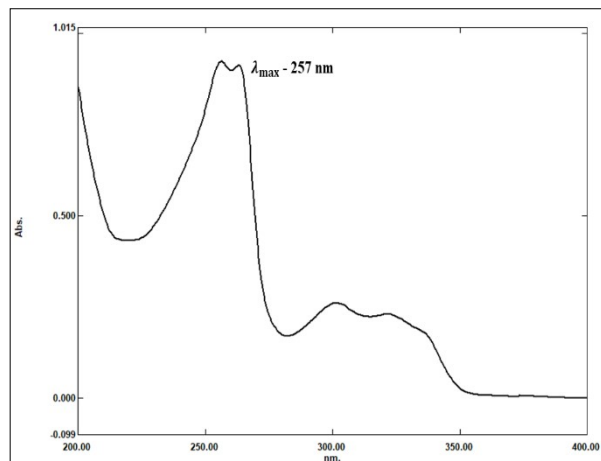


Figure S1: UV Spectra for IGRD

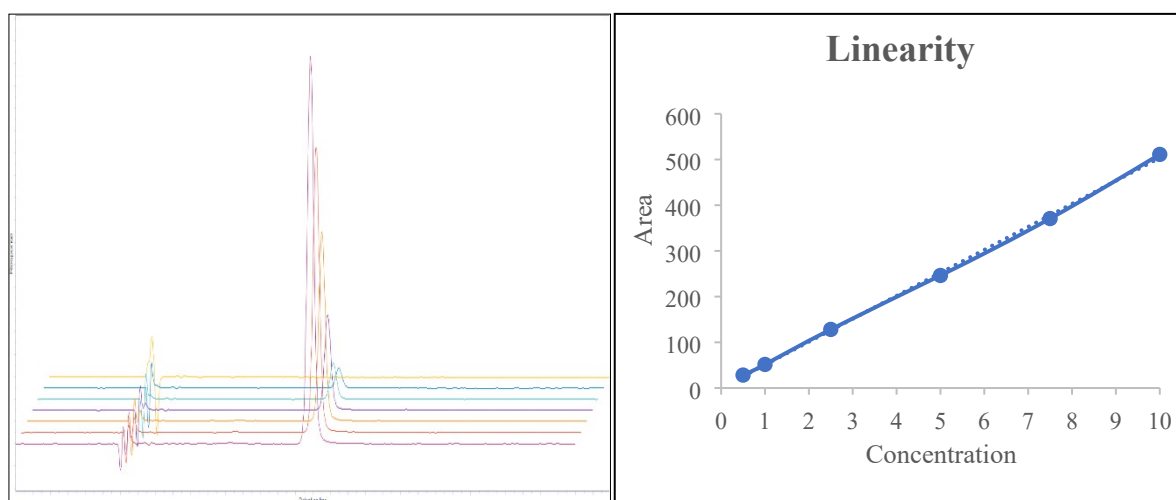


Figure S2: a, b Overlaid chromatogram for linearity (0.5-10 µg/mL) and calibration curve

Preparative LC-DAD/MS

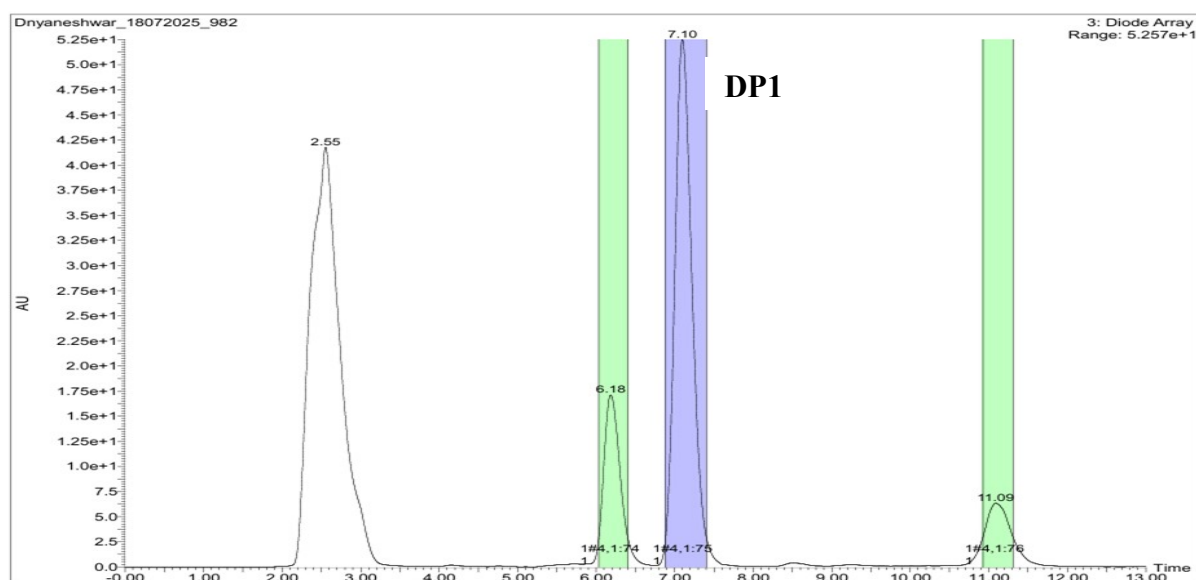
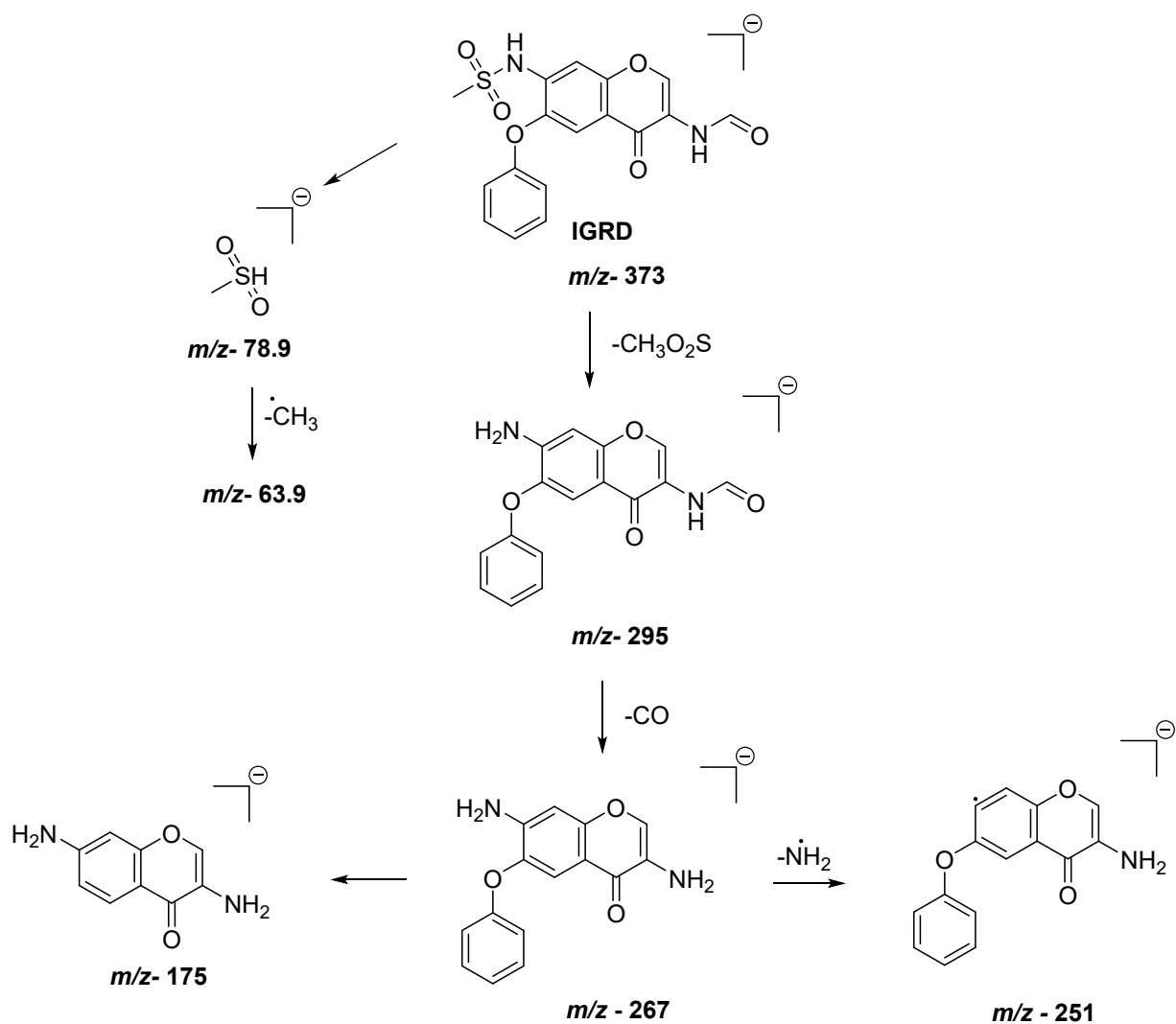


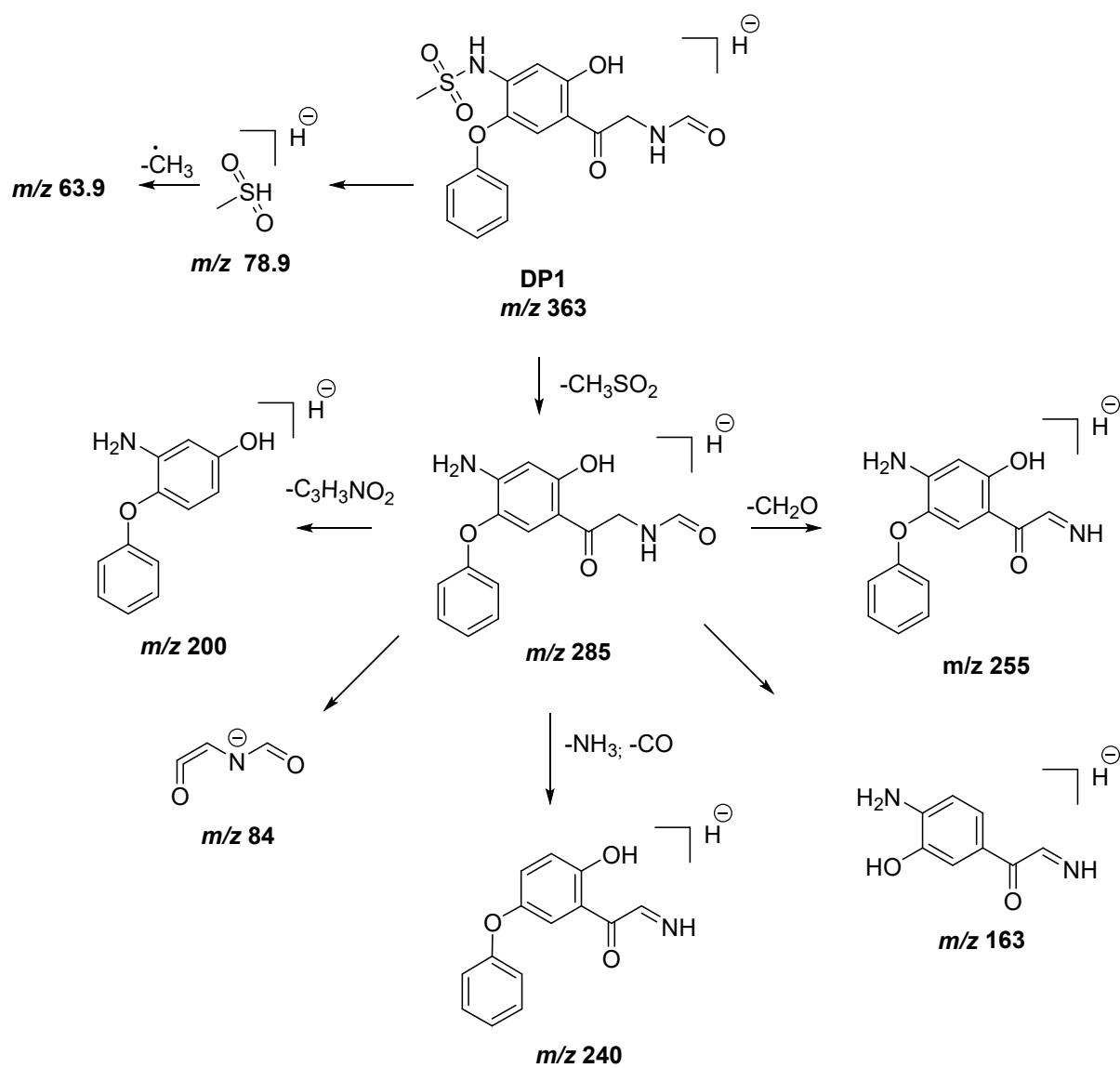
Figure S3. Fraction collections of DP1 in basic hydrolytic conditions

Table S1: System suitability parameter

Parameter	RP-HPLC	Reference value
Retention time (Rt)	4.18 ± 0.2	-
Capacity factor (k')	1.796	$0.5 \leq k' \leq 20$
Tailing factor (T)	1.080	$0.9 \leq T \leq 1.5$
Theoretical plate number	5424.907	$N \geq 2000$



Scheme S1: Preposed fragmentation pathway of IGRD (m/z - 373)



Scheme S2: Preposed fragmentation pathway of DP-1 (m/z - 363)

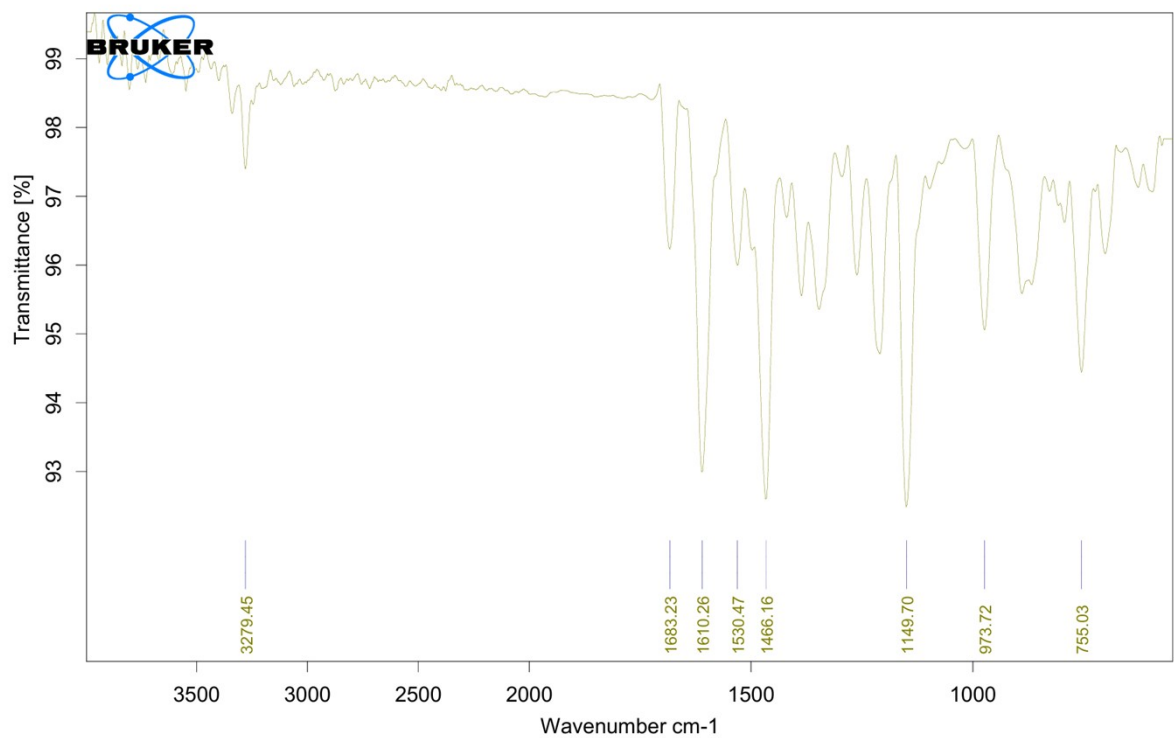


Figure S4. FT-IR spectrum of standard drug (IGRD)

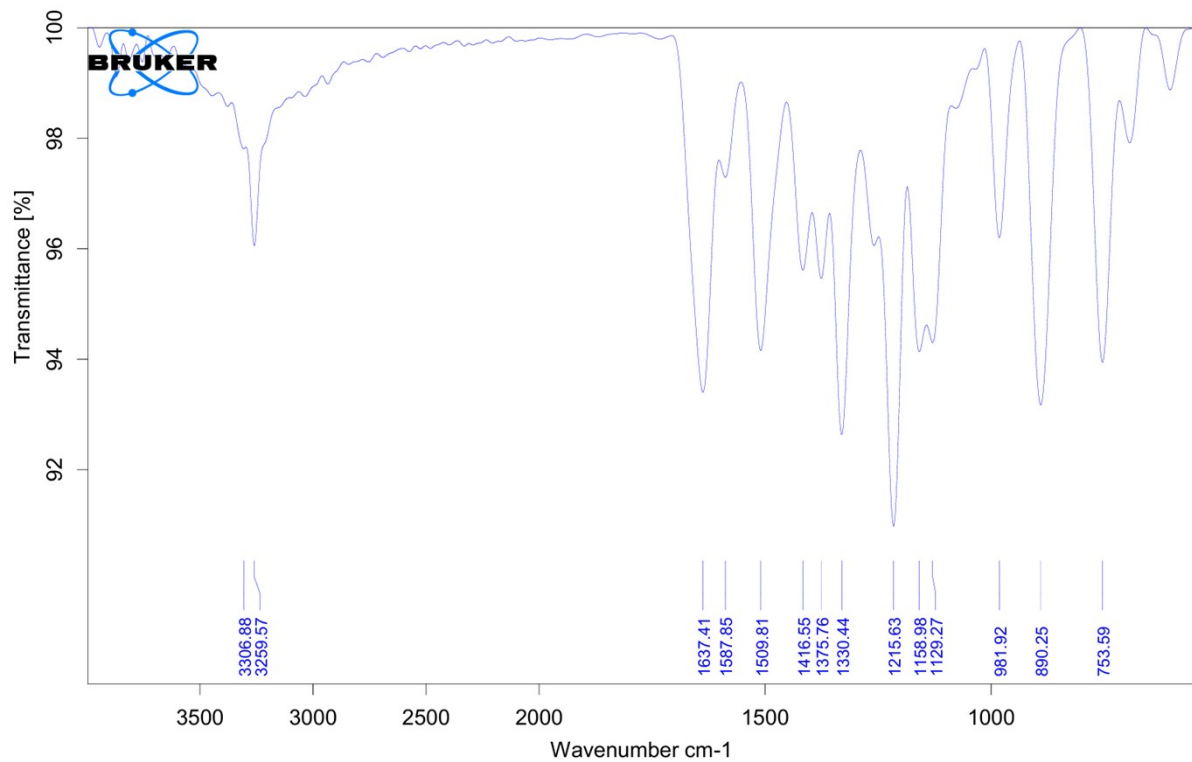


Figure S5. FT-IR spectrum of DP1