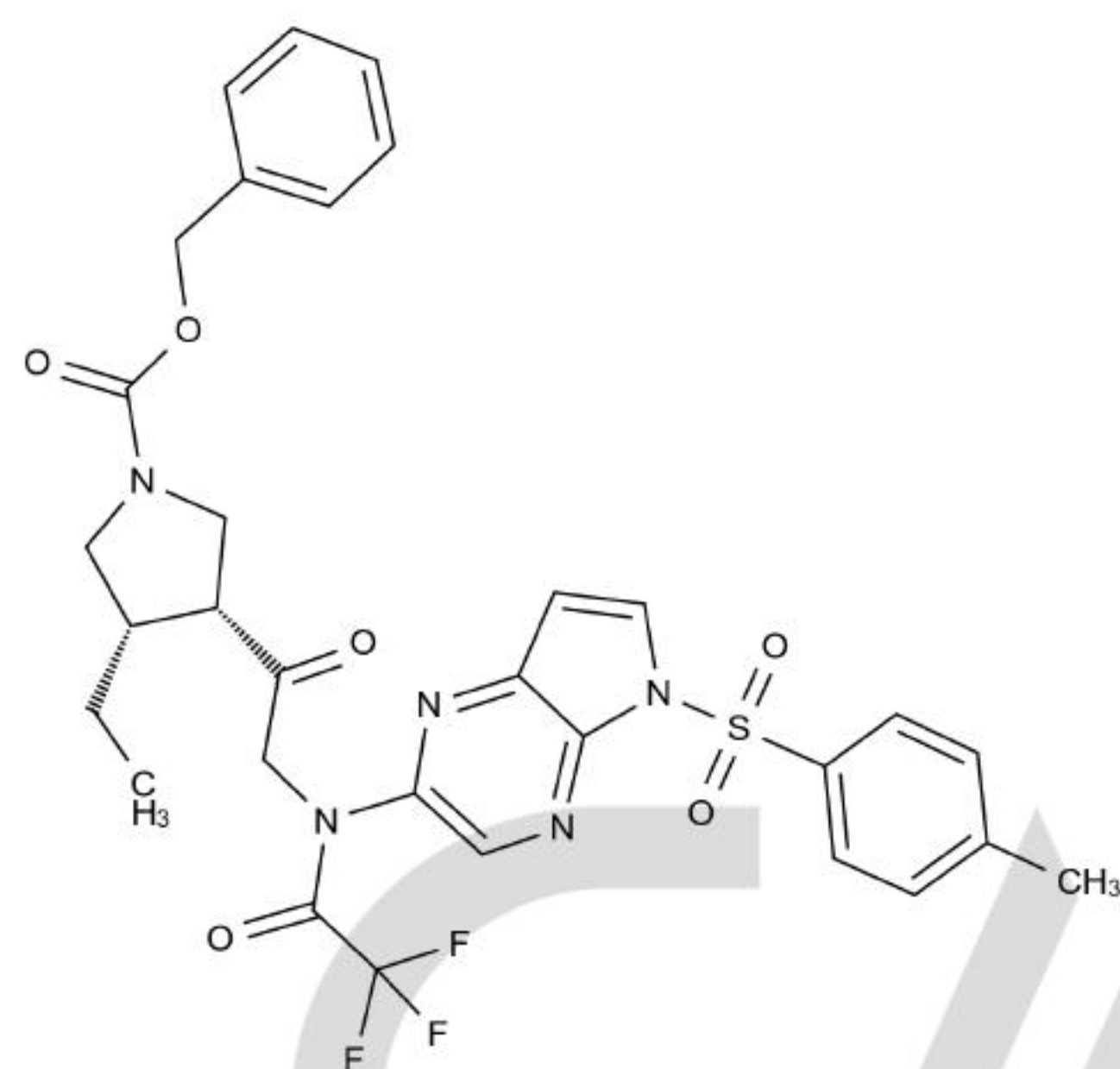


Certificate of Analysis

Reference Material

Product Name:	Upadacitinib Impurity 32	Catalogue Number:	C4X-240532
Chemical Name:	N/A	Lot Number:	0824-RE-0032
CAS Number:	2715120-88-8	Expiry Date:	Mar 30, 2026
Molecular Formula:	C ₃₁ H ₃₀ F ₃ N ₅ O ₆ S	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	657.66		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Brown Solid
Identification	LCMS&UV&HNMR	Confirmed
Purity	HPLC	98.497%
Water Content	Karl Fischer	0.37%
Residual Solvents	NMR	0.45% ethanol and 0.05% acetonitrile
Assay		97.6%

Comment:

The calculation of the 100% method follows the formula (calculated on the non-dried basis):

Assay (%) = (100% - Water Content - Residual Solvents) * Purity HPLC (%) / 100%

Water Content and Residual Solvents are considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Lily

Reviewed by:

Hin Lam

Aproved by General manager:

David

Date: Mar 31, 2023

Date: Aug 25, 2023

Date: Aug 25, 2023

