

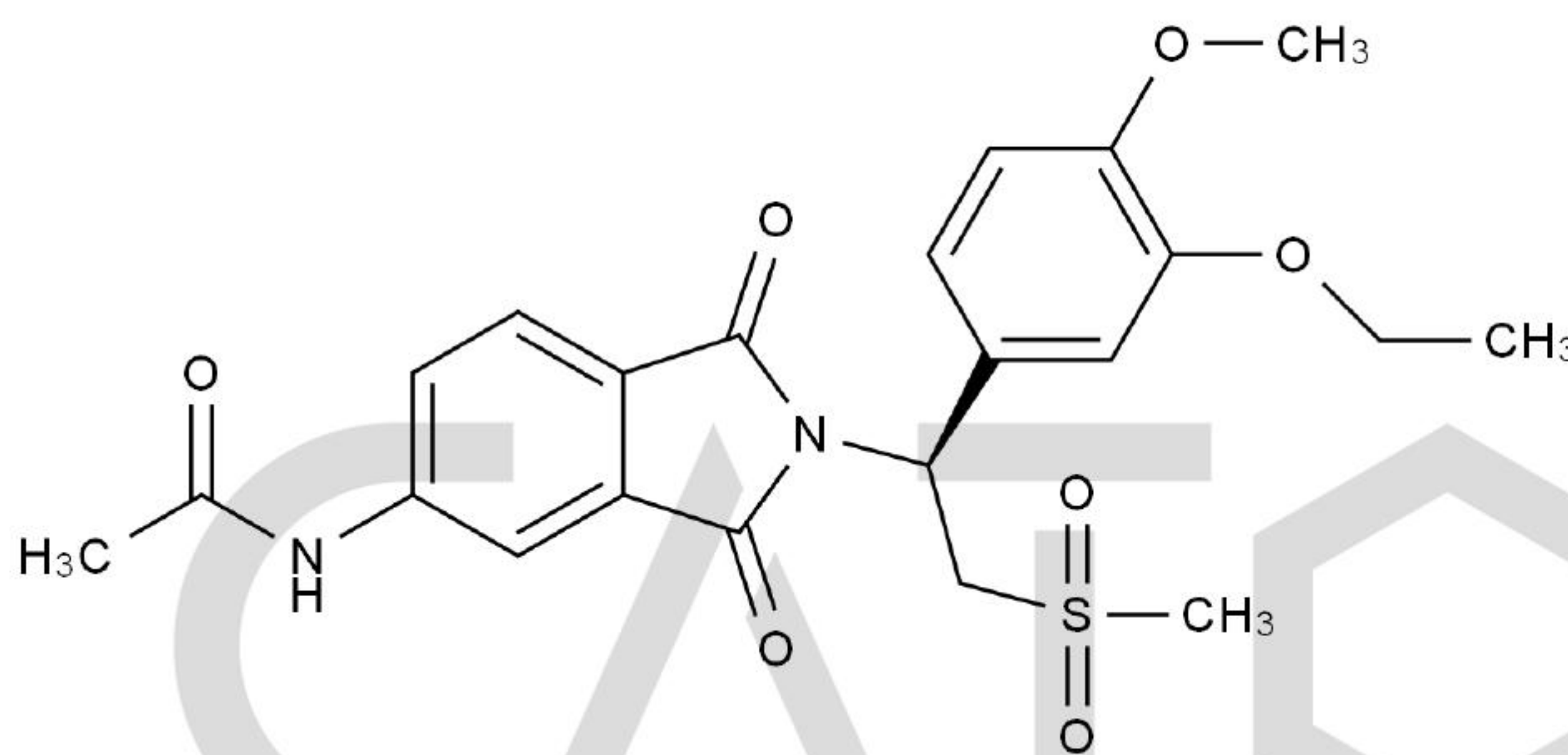
# Certificate of Analysis

## Reference Material & Standard

|                    |                       |                   |                                           |
|--------------------|-----------------------|-------------------|-------------------------------------------|
| Product Name:      | Apremilast Impurity 4 | Catalogue Number: | C4X-10094                                 |
| Synonyms:          | N/A                   | Lot Number:       | 0918-RF-0102                              |
| CAS Number:        | 2201974-01-6          | Expiry Date:      | Sep 23, 2027                              |
| Molecular Formula: | C22H24N2O7S           | Storage:          | 2°C ~ 8°C Protected from light and Sealed |
| Molecular Weight:  | 460.50                | Warning:          |                                           |



Chemical Structure:



| Test Items        | Method            | Results            |
|-------------------|-------------------|--------------------|
| Appearance        | Visual inspection | Orange Solid       |
| Identification    | LCMS&IR&UV&HNMR   | Confirmed          |
| Purity            | HPLC              | 99.227%            |
| Water Content     | Karl Fischer      | 0.37%              |
| Residual Solvents | NMR               | 2.41% acetonitrile |
| Assay             |                   | 96.5%              |

## 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:

*Koi*

Reviewed by:

*Lisa*

Approved by General Manager:

*David*

Date: Sep 24, 2024

Date: Sep 24, 2024

Date: Sep 24, 2024

