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TOCRIS

Print Date: Mar 5th 2024

# Certificate of Analysis

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**Product Name:** **MS 154** **Catalog No.: 7395** **Batch No.: 1**

CAS Number: 2550393-21-8

IUPAC Name: 3-(4-(3-((4-((3-Chloro-4-fluorophenyl)amino)-7-methoxyquinazolin-6-yl)oxy)propyl)piperazin-1-yl)-*N*-(8-((2-(2,6-dioxopiperidin-3-yl)-1,3-dioxoisoindolin-4-yl)oxy)octyl)propanamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** $C_{46}H_{54}ClFN_8O_8.½H_2O$

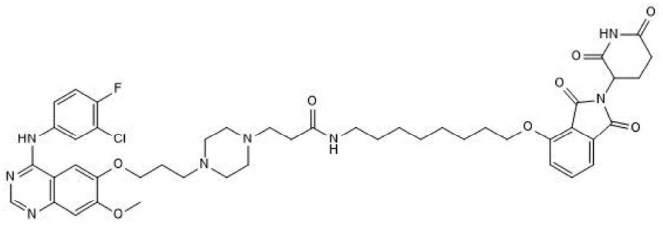
**Batch Molecular Weight:** 910.44

**Physical Appearance:** Pale yellow solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 98.8% purity

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 60.69 | 6.09 | 12.31 |
| Found | 60.25 | 6.15 | 12.14 |



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**Description:**

MS 154 is a potent and selective cereblon-recruiting Degrader (PROTAC®) of mutant epidermal growth factor receptor (EGFR), comprising a cereblon-binding moiety joined by a linker to gefitinib (Iressa, Cat. No. 3000). MS 154 decreases EGFR protein levels, inhibits downstream signaling in and inhibits proliferation of mutant EGFR-bearing lung cancer cells ($DC_{50}$ values are 11 and 25 nM in HCC-827 and H3255 cells, respectively; $D_{max}$ > 95% at 50 nM), but not in WT-EGFR-bearing ovarian and lung cancer cells lines. Bioavailable in mice following ip administration. Negative control (Cat. No. 7396) and EGFR antibody validated for Simple West... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

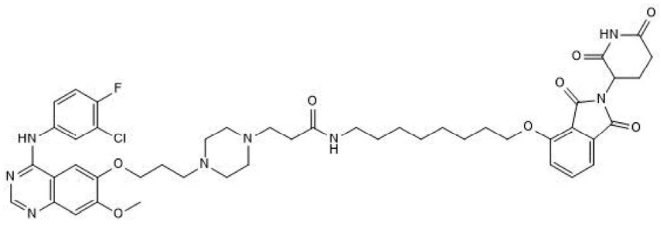
Batch Molecular Formula: $C_{46}H_{54}ClFN_8O_8.½H_2O$

Batch Molecular Weight: 910.44

Physical Appearance: Pale yellow solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**Licensing Information:**

Sold under license from Icahn School of Medicine at Mount Sinai.

**References:**

**Cheng** *et al* (2020) Discovery of potent and selective epidermal growth factor receptor (EGFR) bifunctional small-molecule degraders. J.Med.Chem. ***63*** 1216. PMID: 31895569.



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