# PF-03715455

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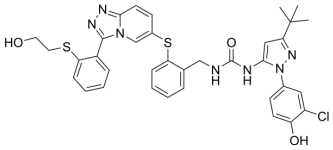
| **Cat. No.:** | HY-18862 |
| **CAS No.:** | 1056164-52-3 |
| **Molecular Formula:** | $C_{35}H_{34}ClN_7O_3S_2$ |
| **Molecular Weight:** | 700.27 |
| **Target:** | p38 MAPK |
| **Pathway:** | MAPK/ERK Pathway |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

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| **Description** | PF-03715455 is a potent inhaled p38 MAPK inhibitor. PF-03715455 shows some selectivity for p38α over p38β with respective $IC_{50}$ values of 0.88 and 23 nM. PF-03715455 potently inhibits LPS-induced TNFα production in human whole blood ($IC_{50}$=1.7 nM). PF-03715455 has potential for the treatment of COPD (chronic obstructive pulmonary disease)[1][2]. | |
| **$IC_{50}$ & Target** | p38α<br>0.88 nM ($IC_{50}$) | p38β<br>23 nM ($IC_{50}$) |
| **In Vitro** | PF-03715455 is a moderate inhibitor of CYP1A2, CYP2C19, and CYP2D6 and a potent inhibitor of CYP's 2C9 and CYP3A4[2].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |
| **In Vivo** | PF-03715455 treatment shows that the $V_{ss}$ and $T_{1/2}$ are 0.19 L/kg, 1 hour, respectively[2].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |

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| Animal Model: | Male CD Sprague Dawley rats (300-450 g)[2] |
| Dosage: | 1 mg/kg |
| Administration: | I.v. (Pharmacokinetic Analysis) |
| Result: | The $V_{ss}$, and $T_{1/2}$ were 0.19 L/kg, 1 hour, respectively. |

## REFERENCES

[1]. Norman P, et al. Investigational p38 inhibitors for the treatment of chronic obstructive pulmonary disease. Expert Opin Investig Drugs. 2015 Mar;24(3):383-92.

[2]. Millan DS, et al. Design and synthesis of inhaled p38 inhibitors for the treatment of chronic obstructive pulmonary disease. J Med Chem. 2011 Nov 24;54(22):7797-814.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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