# PRODUCT INFORMATION

## BMS 986165

*Item No. 33524*

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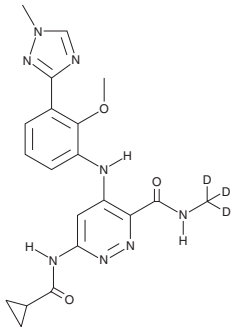
| **CAS Registry No.:** | 1609392-27-9 |
| **Formal Name:** | 6-[(cyclopropylcarbonyl)amino]-4-[[2-methoxy-3-(1-methyl-1H-1,2,4-triazol-3-yl)phenyl]amino]-N-(methyl-$d_3$)-3-pyridazinecarboxamide |
| **MF:** | $C_{20}H_{19}D_3N_8O_3$ |
| **FW:** | 425.5 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 252 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |



*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

BMS 986165 is supplied as a crystalline solid. A stock solution may be made by dissolving the BMS 986165 in the solvent of choice, which should be purged with an inert gas. BMS 986165 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of BMS 986165 in these solvents is approximately 1 mg/ml.

BMS 986165 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BMS 986165 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BMS 986165 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

BMS 986165 is an allosteric inhibitor of tyrosine kinase 2 (TYK2; $IC_{50}$ = 0.2 nM for the recombinant TYK2 pseudokinase domain).[1] It is selective for TYK2 over a panel of 249 protein and lipid kinases at 1 µM but does inhibit the JAK1 pseudokinase domain and bone morphogenetic protein receptor type II (BMPR2; $IC_{50}$s = 1 and 193 nM, respectively). BMS 986165 inhibits IFN-α-induced phosphorylation of STAT1, -2, -3, and -5 in primary human peripheral blood mononuclear cells (PBMCs; $IC_{50}$s = 1-6 nM). It also inhibits IL-12-induced production of IFN-γ in human PBMCs ($IC_{50}$ = 11 nM) and IL-12-induced phosphorylation of STAT4 in NK-92 cells ($IC_{50}$ = 5 nM). BMS 986165 (1 and 10 mg/kg) reduces IL-12 and IL-18-induced production of IFN-γ in mice. It inhibits IFN-regulated expression of *IFIT3*, *IFIT1*, and *MX1*, genes encoding innate antiviral response proteins, and reduces tubulointerstitial and glomerular nephritis in female NZB/W lupus-prone mice. BMS 986165 also inhibits anti-CD40 antibody-induced colitis and systemic wasting in mice.

### Reference


1. Burke, J.R., Cheng, L., Gillooly, K.M., *et al.* Autoimmune pathways in mice and humans are blocked by pharmacological stabilization of the TYK2 pseudokinase domain. *Sci. Transl. Med.* **11(502)**, eaaw1736 (2019).





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