# Data Sheet

### Product Information

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| Catalog Number | BP22293 |
| Product Name | CZ415 |
| Description | CZ415 is a potent and highly selective mTOR inhibitor. |
| Targets&IC50 | mTOR:8.07(pIC50) |
| In vitro | CZ415 shows no genotoxic potential and has very good cell permeability. Treatment of CZ415 leads to inhibition of phosphorylation for downstream targets of mTORC1 and mTORC2(IC50=14.5 nM for pS6RP and IC50=14.8 nM for pAKT). The immunosuppressive effect of CZ415 is measured by detecting secreted IFNγ after 18 h in stimulated human whole blood, and the resulting IC50 was 226 nM. CZ415 shows no genotoxic potential. It is neither mutagenic in a bacterial mutation assay (Ames test) nor does it show genotoxicity in the mouse lymphoma assay (MLA), in either the presence or absence of rat-liver S9 mix. |
| In vivo | In vivo studies show that CZ415 has moderate clearance and good oral bioavailability. In an anti-CD3 mouse model CZ415 efficiently inhibits mTOR downstream signaling and, in a CIA mouse model, shows significant antiinflammatory effects. With its extraordinary selectivity, drug-like properties and proven efficacy in vivo, CZ415 represents an ideal molecule for the pharmacological investigation of mTOR pathophysiological role in vivo. |
| CAS No. | 1429639-50-8 |
| Chemical Formula | C22H29N5O4S |
| Molecular Weight | 459.57 |
| Solubility | DMSO: 84 mg/mL (182.8 mM)<br>H2O: <1 mg/mL; Ethanol: <1 mg/mL |

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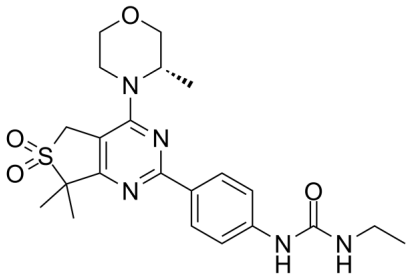
| Storage | Powder: -20°C for 2 years<br>In solvent: -80°C for 1 year |
| Chemical Structure<br>OR<br>Tested Image |  |

Purdue Bioscience Inc.

750 50th St, Brooklyn, NY 11220, USA

https://www.purduebio.com

1-877.618.7311

info@purduebio.com

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