

Product data sheet



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| MedKoo Cat#: 528831 Name: Iberdomide CAS#: 1323403-33-3 (free base) Chemical Formula: C ₂₅ H ₂₇ N ₃ O ₅ Exact Mass: 449.1951 Molecular Weight: 449.5 | | |
| Product supplied as: | Powder | |
| Purity (by HPLC): | ≥ 98% | |
| Shipping conditions | Ambient temperature | |
| Storage conditions: | Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks. | |

1. Product description:

Iberdomide, also known as CC-220, is potentially for the treatment of systemic lupus erythematosus. Iberdomide significantly reduced Ikaros and Aiolos protein levels in B cells, T cells and monocytes. In SLE PBMC cultures, iberdomide inhibited anti-dsDNA and anti-phospholipid autoantibody production (IC₅₀ ≈ 10 nM).

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

| Solvent | Max Conc. mg/mL | Max Conc. mM |
|---------|-----------------|--------------|
| DMSO | 125.00 | 278.09 |

4. Stock solution preparation table:

| Concentration / Solvent Volume / Mass | 1 mg | 5 mg | 10 mg |
|---------------------------------------|---------|----------|----------|
| 1 mM | 2.22 mL | 11.12 mL | 22.25 mL |
| 5 mM | 0.44 mL | 2.22 mL | 4.45 mL |
| 10 mM | 0.22 mL | 1.11 mL | 2.22 mL |
| 50 mM | 0.04 mL | 1.11 mL | 0.44 mL |

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Bjorklund CC, Kang J, Amatangelo M, Polonskaia A, Katz M, Chiu H, Couto S, Wang M, Ren Y, Ortiz M, Towfic F, Flynt JE, Pierceall W, Thakurta A. Iberdomide (CC-220) is a potent cereblon E3 ligase modulator with antitumor and immunostimulatory activities in lenalidomide- and pomalidomide-resistant multiple myeloma cells with dysregulated CRBN. *Leukemia*. 2020 Apr;34(4):1197-1201. doi: 10.1038/s41375-019-0620-8. Epub 2019 Nov 12. PMID: 31719682; PMCID: PMC7214241.
2. Nakayama Y, Kosek J, Capone L, Hur EM, Schafer PH, Ringheim GE. Aiolos Overexpression in Systemic Lupus Erythematosus B Cell Subtypes and BAFF-Induced Memory B Cell Differentiation Are Reduced by CC-220 Modulation of Cereblon Activity. *J Immunol*. 2017 Oct 1;199(7):2388-2407. doi: 10.4049/jimmunol.1601725. Epub 2017 Aug 28. PMID: 28848067; PMCID: PMC5602157.

In vivo study

N/A

7. Bioactivity

Biological target:

Iberdomide (CC-220) is an orally active and potent cereblon (CRBN) E3 ligase modulator (CELMoD) with an IC₅₀ of ~150 nM for cereblon-binding affinity.

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In vitro activity

Iberdomide equally induced PBMC-mediated killing of both parental MM1.S cells and MM1.S/PR cells.

Reference: Leukemia. 2020 Apr;34(4):1197-1201. <https://pubmed.ncbi.nlm.nih.gov/31719682/>

In vivo activity

N/A

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.