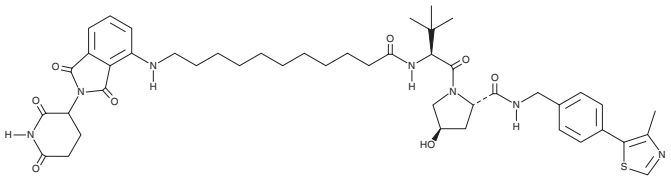
PRODUCT INFORMATION

TD-165

Item No. 44837

CAS Registry No.:	2305936-56-3
Formal Name:	(2S,4R)-1-((2S)-2-(11-((2-(2,6-dioxopiperidin-3-yl)-1,3-dioxoisoindolin-4-yl)amino) undecanamido)-3,3-dimethyl-butanoyl)-4-hydroxy-N-(4-(4-methylthiazol-5-yl)benzyl) pyrrolidine-2-carboxamide
MF:	$C_{46}H_{59}N_7O_8S$
FW:	870.1
Purity:	≥95%
Supplied as:	A 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

TD-165 is supplied as a solid. A stock solution may be made by dissolving the TD-165 in the solvent of choice, which should be purged with an inert gas. TD-165 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

TD-165 is a proteolysis-targeting chimera (PROTAC) that contains VH 032 (Item No. 39982) conjugated to the cereblon (CRBN) inhibitor pomalidomide (Item No. 19877).[1] It induces degradation of CRBN in HEK293T cells with a half-maximal degradation concentration (DC_{50}) value of 20.4 nM. TD-165 (0.5 µM) increases L-type voltage-gated calcium channel 1.2α ($Ca_v1.2α$) levels in AC16 ventricular cardiomyocytes.[2] It increases left ventricle pressure and heart rate in mice. Intra-articular administration of TD-165 (1.5 µg/joint) decreases disease severity and subchondral bone plate thickness in a mouse model of osteoarthritis induced by destabilization of the medial meniscus.[3]

References

1. Kim, K., Lee, D.H., Park, S., *et al.* Disordered region of cereblon is required for efficient degradation by proteolysis-targeting chimera. *Sci. Rep.* **9(1),** (2019).
2. Park, N., Marquez, J., Pham, T.K., *et al.* Cereblon contributes to cardiac dysfunction by degrading $Ca_v1.2α$. *Eur. Heart J.* **43(20),** 1973-1989 (2022).
3. Lee, Y., Kim, H.-E., Kwak, J.-S., *et al.* The cereblon-AMPK (AMP-activated protein kinase) axis in chondrocytes regulates the pathogenesis of osteoarthritis. *Osteoarthritis Cartilage* **32(12),** 1579-1590 (2024).

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