

PRODUCT INFORMATION

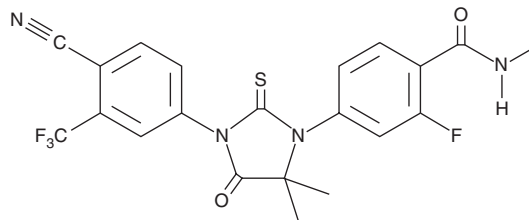


MDV 3100

Item No. 11596

CAS Registry No.: 915087-33-1
Formal Name: 4-[3-[4-cyano-3-(trifluoromethyl)phenyl]-5,5-dimethyl-4-oxo-2-thioxo-1-imidazolidinyl]-2-fluoro-N-methyl-benzamide

Synonym: Enzalutamide
MF: C₂₁H₁₆F₄N₄O₂S
FW: 464.4
Purity: ≥98%
UV/Vis.: λ_{max}: 237 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

MDV 3100 is supplied as a crystalline solid. A stock solution may be made by dissolving the MDV 3100 in the solvent of choice, which should be purged with an inert gas. MDV 3100 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MDV 3100 in these solvents is approximately 0.5, 20, and 25 mg/ml, respectively.

MDV 3100 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MDV 3100 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MDV 3100 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MDV 3100 is a non-steroidal androgen receptor antagonist (IC₅₀ = 36 nM).^{1,2} It reduces the efficiency of nuclear translocation of the androgen receptor and impairs both its binding to DNA and the recruitment of coactivators.¹ It is orally available and induces tumor regression in mouse models of castration-resistant human prostate cancer.¹ It has applications in advanced cancers that remain dependent on androgen receptor signaling even in the absence of androgen.³

References

1. Tran, C., Ouk, S., Clegg, N.J., *et al.* Development of a second-generation antiandrogen for treatment of advanced prostate cancer. *Science* **324**(5928), 787-790 (2009).
2. Jung, M.E., Ouk, S., Yoo, D., *et al.* Structure-activity relationship for thiohydantoin androgen receptor antagonists for castration-resistant prostate cancer (CRPC). *J. Med. Chem.* **53**(7), 2779-2796 (2010).
3. Semenas, J., Dizeyi, N., and Persson, J.L. Enzalutamide as a second generation antiandrogen for treatment of advanced prostate cancer. *Drug Des. Devel. Ther.* **7**, 875-881 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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