

PRODUCT INFORMATION



Enzalutamide-d₃

Item No. 45044

CAS Registry No.: 1443331-82-5
Formal Name: 4-[3-[4-cyano-3-(trifluoromethyl)phenyl]-5,5-dimethyl-4-oxo-2-thioxo-1-imidazolidinyl]-2-fluoro-N-(methyl-d₃)-benzamide

MF: C₂₁H₁₃D₃F₄N₄O₂S
FW: 467.5

Chemical Purity: ≥95% (Enzalutamide)

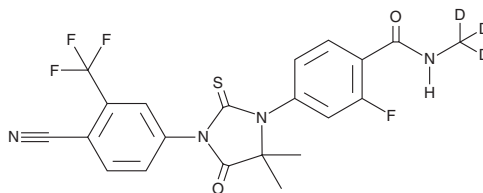
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀

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

Enzalutamide-d₃ is intended for use as an internal standard for the quantification of enzalutamide (Item No. 11596) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Enzalutamide-d₃ is supplied as a solid. A stock solution may be made by dissolving the enzalutamide-d₃ in the solvent of choice, which should be purged with an inert gas. Enzalutamide-d₃ is slightly soluble in chloroform and ethyl acetate.

Description

Enzalutamide 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 Formulations containing enzalutamide have been used in the treatment of prostate cancer.

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).

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.

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