

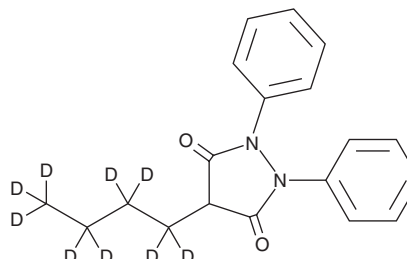
PRODUCT INFORMATION



Phenylbutazone-d₉

Item No. 33978

CAS Registry No.: 1189479-75-1
Formal Name: 4-(butyl-d₉)-1,2-diphenyl-3,5-pyrazolidinedione
MF: C₁₉H₁₁D₉N₂O₂
FW: 317.4
Chemical Purity: ≥98% (Phenylbutazone)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₉); ≤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

Phenylbutazone-d₉ is intended for use as an internal standard for the quantification of phenylbutazone (Item No. 70400) 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).

Phenylbutazone-d₉ is supplied as a solid. A stock solution may be made by dissolving the phenylbutazone-d₉ in the solvent of choice, which should be purged with an inert gas. Phenylbutazone-d₉ is soluble in the organic solvent methanol.

Description

Phenylbutazone is a non-steroidal anti-inflammatory drug and an inhibitor of the peroxidase activity of COX (IC₅₀ = ~100 μM in the presence of hydrogen peroxide).¹ It also inhibits prostaglandin I synthase (IC₅₀ = ~25 μM in the presence of hydrogen peroxide). Phenylbutazone (2 mg/kg) reduces increases in type II collagen levels in the inflamed joints of an equine model of LPS-induced acute synovitis.² Formulations containing phenylbutazone have been used in the treatment of lameness in horses.

References

1. Reed, G.A., Griffin, I.O., and Eling, T.E. Inactivation of prostaglandin H synthase and prostacyclin synthase by phenylbutazone. Requirement for peroxidative metabolism. *Mol. Pharmacol.* **27**(1), 109-114 (1985).
2. de Grauw, J.C., van Loon, J.P.A.M., van de Lest, C.H.A., et al. In vivo effects of phenylbutazone on inflammation and cartilage-derived biomarkers in equine joints with acute synovitis. *Vet. J.* **201**(1), 51-56 (2014).

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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