

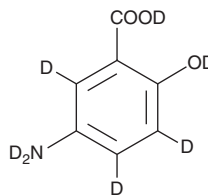
PRODUCT INFORMATION



5-Aminosalicylic Acid-d₇

Item No. 37197

Formal Name:	5-(amino-d ₂)-2-(hydroxy-d)benzoic-d ₃ acid-d
Synonyms:	5-ASA-d ₇ , Mesalamine-d ₇ , Mesalazine-d ₇
MF:	C ₇ D ₇ NO ₃
FW:	160.2
Chemical Purity:	≥98% (5-Aminosalicylic Acid)
Deuterium	
Incorporation:	≥99% deuterated forms (d ₁ -d ₇); ≤1% d ₀
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

5-Aminosalicylic acid-d₇ (5-ASA-d₇) is intended for use as an internal standard for the quantification of 5-ASA (Item No. 70265) 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).

5-ASA-d₇ is supplied as a solid. A stock solution may be made by dissolving the 5-ASA-d₇ in the solvent of choice, which should be purged with an inert gas. 5-ASA-d₇ is soluble in the organic solvent DMSO at a concentration of approximately 4 mg/ml. 5-ASA-d₇ is soluble in ethanol and 1 M HCl.

Description

5-ASA is a non-steroidal anti-inflammatory drug (NSAID) and an active metabolite of sulphasalazine (Item No. 15025), basalazide (Item No. 18680), and olsalazine (Item No. 23661).¹ It selectively inhibits COX-2 over COX-1 in isolated human whole blood (IC₅₀s = 61 and 410 μM, respectively). 5-ASA inhibits hemoglobin- and hydrogen peroxide-induced lipid peroxidation in a cell-free assay (IC₅₀ = 50 μM).² It also inhibits the synthesis of leukotriene B₄ (LTB₄; Item No. 20110) in isolated human mucosal cells when used at a concentration of 100 μM.³ Formulations containing 5-ASA have been used in the treatment of inflammatory bowel disease (IBD) and ulcerative colitis.

References

1. Warner, T.D., Giuliano, F., Vojnovic, I., *et al.* Nonsteroid drug selectivities for cyclo-oxygenase-1 rather than cyclo-oxygenase-2 are associated with human gastrointestinal toxicity: A full in vitro analysis. *Proc. Natl. Acad. Sci. USA* **96**(13), 7563-7568 (1999).
2. Beiranvand, M. A review of the biological and pharmacological activities of *mesalazine* or *5-aminosalicylic acid* (5-ASA): An anti-ulcer and anti-oxidant drug. *Inflammopharmacology* **29**(5), 1279-1290 (2021).
3. Schmidt, C., Fels, T., Baumeister, B., *et al.* The effect of 5-aminosalicylate and para-aminosalicylate on the synthesis of prostaglandin E₂ and leukotriene B₄ in isolated colonic mucosal cells. *Curr. Med. Res. Opin.* **13**(7), 417-425 (1996).

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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