PRODUCT INFORMATION



4-Aminobenzoic Acid (sodium salt)

Item No. 18659

CAS Registry No.: 555-06-6

Formal Name: 4-amino-benzoic acid,

monosodium salt

Synonyms: PABA, p-Aminobenzoic Acid

MF: $C_7H_6NO_2 \bullet Na$

FW: 159.1 **Purity:** ≥98% UV/Vis.: λ_{max} : 274 nm A crystalline solid Supplied as:

Storage: -20°C Stability:

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

≥4 years

Laboratory Procedures

PABA (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the PABA (sodium salt) in the solvent of choice, which should be purged with an inert gas. PABA (sodium salt) is slightly soluble in ethanol, DMSO, and dimethyl formamide.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PABA (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PABA (sodium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PABA is an intermediate in the synthesis of tetrahydrofolic acid (Item No. 18263) in many non-mammalian organisms, including bacteria and fungi. Folates, like tetrahydrofolic acid, have critical roles in the metabolism of nucleic acid precursors and several amino acids, as well as in methylation reactions.² In mammals, PABA is metabolized by a variety of enzymes, including N-acetyltransferases.3 It may also be utilized by bacteria or fungi that are living in mammalian organisms, including those resident in the gut.⁴

References

- 1. Wegkamp, A., van Oorschot, W., de Vos, W.M., et al. Characterization of the role of para-aminobenzoic acid biosynthesis in folate production by Lactococcus lactis. Appl. Environ. Microbiol. 73(8), 2673-2681
- 2. Ragsdale, S.W. Catalysis of methyl group transfers involving tetrahydrofolate and B12. Vitam. Horm. 79, 293-324 (2008).
- 3. Föllmann, W., Blaszkewicz, M., Behm, C., et al. N-Acetylation of p-aminobenzoic acid and p-phenylenediamine in primary porcine urinary bladder epithelial cells and in the human urothelial cell line 5637. J. Toxicol. Environ. Health 75(19-20), 1206-1215 (2012).
- 4. Rossi, M., Amaretti, A., and Raimondi, S. Folate production by probiotic bacteria. Nutrients 3(1), 118-134 (2011).

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

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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