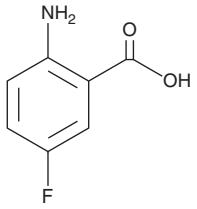
PRODUCT INFORMATION

2-Amino-5-fluorobenzoic Acid

Item No. 16669

CAS Registry No.: 446-08-2
Formal Name: 2-amino-5-fluoro-benzoic acid
Synonyms: 5-FAA, 5-Fluoroanthranilic Acid, NSC 513308
MF: $C_7H_6FNO_2$
FW: 155.1
Purity: ≥98%
UV/Vis.: λ_{max}: 215, 245, 348 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

2-Amino-5-fluorobenzoic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 2-amino-5-fluorobenzoic acid in the solvent of choice, which should be purged with an inert gas. 2-Amino-5-fluorobenzoic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-amino-5-fluorobenzoic acid in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

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 2-amino-5-fluorobenzoic acid can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 2-amino-5-fluorobenzoic acid in PBS (pH 7.2) is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

2-Amino-5-fluorobenzoic acid is a toxic antimetabolite for the tryptophan pathway in yeast that can be used to counterselect for *TRP1*, a commonly used genetic marker in *S. cerevisiae*.[1] Because this *trp1* strain lacks the enzymes required for the conversion of anthranilic acid to tryptophan, it is resistant to 2-amino-5-fluorobenzoic acid feedback inhibition, enabling a growth-based, positive selection of the *TRP1* marker. 2-Amino-5-fluorobenzoic acid is frequently used in genetic procedures that involve plasmid manipulations.[1]

Reference

1. Toyn, J.H., Gunyuzlu, P.L., White, W.H., *et al.* A counterselection for the tryptophan pathway in yeast: 5-Fluoroanthranilic acid resistance. *Yeast* **16(6)**, 553-560 (2000).

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