Desacetyl Bisacodyl
Item No. 20928

CAS Registry No.: 603-41-8
Formal Name: 4,4’-(2-pyridinylmethylene)bis-phenol
Synonyms: DAB, DDPM
MF: C_{18}H_{15}NO_{2}
FW: 277.3
Purity: ≥98%
UV/Vis.: \(\lambda_{\text{max}}: 229, 267\) nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Desacetyl bisacodyl (DAB) is supplied as a crystalline solid. A stock solution may be made by dissolving the DAB in the solvent of choice. DAB is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of DAB in ethanol is approximately 2.5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

DAB is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DAB should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DAB has a solubility of approximately 0.11 mg/ml in a 1:8 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

DAB is an active metabolite of two stimulant laxatives, bisacodyl and sodium picosulfate.\(^1,2\) DAB evokes several effects at the colon or rectum, including increased mucus and chloride secretion.\(^3,4\) Oral administration of bisacodyl leads to decreased expression of aquaporin-3 in the colon of rats.\(^5\) The effects of both DAB and bisacodyl can be blocked with cyclooxygenase (COX) inhibitors, suggesting that products of the COX signaling pathway contribute to laxative effects.\(^4,5\)

References