

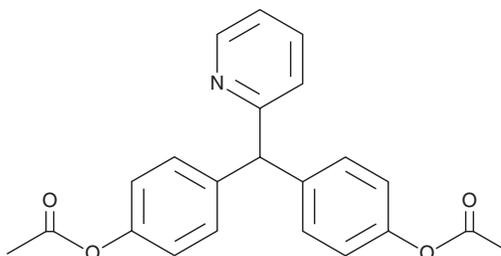
# PRODUCT INFORMATION



## Bisacodyl

Item No. 28826

**CAS Registry No.:** 603-50-9  
**Formal Name:** 4,4'-(2-pyridinylmethylene)bis-phenol,  
1,1'-diacetate  
**Synonym:** NSC 614826  
**MF:** C<sub>22</sub>H<sub>19</sub>NO<sub>4</sub>  
**FW:** 361.4  
**Purity:** ≥98%  
**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

Bisacodyl is supplied as a crystalline solid. A stock solution may be made by dissolving the bisacodyl in the solvent of choice, which should be purged with an inert gas. Bisacodyl is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of bisacodyl in these solvents is approximately 1 and 30 mg/ml, respectively.

Bisacodyl is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, bisacodyl should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Bisacodyl has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Bisacodyl is a prodrug form of the stimulant laxative desacetyl bisacodyl (Item No. 20928).<sup>1</sup> It reduces the activity of Na<sup>+</sup>/K<sup>+</sup>-ATPases in isolated rat colon following administration in the drinking water at a concentration of 83 μM.<sup>2</sup> Bisacodyl (20 mg/kg) decreases colonic aquaporin-3 levels and increases stool water content in rats, effects that are reversed by the COX inhibitor indomethacin (Item No. 70270).<sup>3</sup> Formulations containing bisacodyl have been used in the treatment of constipation.

### References

1. Jauch, R., Hankwitz, R., Beschke, K., *et al.* Bis-(p-hydroxyphenyl)-pyridyl-2-methane: The common laxative principle of Bisacodyl and sodium picosulfate. *Arzneimittel-Forschung* **25(11)**, 1796-1800 (1975).
2. Schreiner, J., Nell, G., and Loeschke, K. Effect of diphenolic laxatives on Na<sup>+</sup>-K<sup>+</sup>-activated ATPase and cyclic nucleotide content of rat colon mucosa in vivo. *Naunyn-Schmiedeberg's Arch. Pharmacol.* **313(3)**, 249-255 (1980).
3. Ikarashi, N., Baba, K., Ushiki, T., *et al.* The laxative effect of bisacodyl is attributable to decreased aquaporin-3 expression in the colon induced by increased PGE<sub>2</sub> secretion from macrophages. *Am. J. Physiol. Gastrointest. Liver Physiol.* **301(5)**, G887-G895 (2011).

#### 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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