



## Product Information

**Product ID** A4944  
**CAS No.** 68302-57-8  
**Chemical Name** 2-amino-5-oxo-7-propan-2-ylchromeno[2,3-b]pyridine-3-carboxylic acid

**Synonym** Amoxanox, Aphthasol

**Formula** C<sub>16</sub>H<sub>14</sub>N<sub>2</sub>O<sub>4</sub>  
**Formula Wt.** 298.29

**Melting Point**

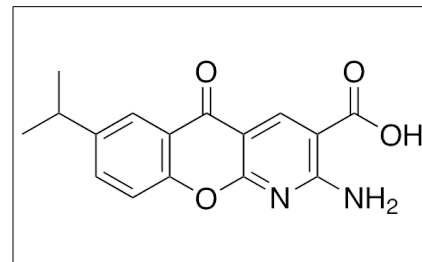
**Purity** ≥99%

**Solubility** Ethanol (0.58 mg/ml), DMSO (10 mg/ml), DMF (14 mg/ml),  
and 1:1 DMSO: PBS (pH 7.2) (0.5 mg/ml)

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Amlexanox is an azoxanthone derivative that is used to treat recurring aphthous ulcer and asthma. Amlexanox alters cytoskeleton function and inhibits cell migration and proliferation through binding to S100A12 and S100A13 proteins and attenuation of actin stress fiber formation and FGF1 release. Amlexanox may exhibit its anti-allergic activity through inhibition of 5- and 12-lipoxygenase, and also through inhibition of histamine release from mast cells. This compound also displays anti-obesity and anti-diabetic properties through its inhibition of TANK-binding kinase 1 (TBK1) and IκB kinase (IKK); this activity increases energy expenditure, thermogenesis, and weight loss, and also improves insulin sensitivity.



## Pricing and Availability

**Bulk quantities available upon request**

Product ID	Size	List Price
A4944	500 mg	\$73.30
A4944	1 g	\$104.70
A4944	5 g	\$418.90

**References** Reilly SM, Chiang SH, Decker SJ, et al. An inhibitor of the protein kinases TBK1 and IKK-ε improves obesity-related metabolic dysfunctions in mice. *Nat Med.* 2013 Mar;19(3):313-21. PMID: 23396211.

Bell J. Amlexanox for the treatment of recurrent aphthous ulcers. *Clin Drug Investig.* 2005;25(9):555-66. PMID: 17532700.

Landriscina M, Prudovsky I, Mouta Carreira C, et al. Amlexanox reversibly inhibits cell migration and proliferation and induces the Src-dependent disassembly of actin stress fibers in vitro. *J Biol Chem.* 2000 Oct 20;275(42):32753-62. PMID: 10921913.

Shishibori T, Oyama Y, Matsushita O, Yet al. Three distinct anti-allergic drugs, amlexanox, cromolyn and tranilast, bind to S100A12 and S100A13 of the S100 protein family. *Biochem J.* 1999 Mar 15;338 ( Pt 3):583-9. PMID: 10051426.

Makino H, Saijo T, Ashida Y, et al. Mechanism of action of an antiallergic agent, amlexanox (AA-673), in inhibiting histamine release from mast cells. Acceleration of cAMP generation and inhibition of phosphodiesterase. *Int Arch Allergy Appl Immunol.* 1987;82(1):66-71. PMID: 2433225.

Saijo T, Makino H, Tamura S, et al. The antiallergic agent amoxanox suppresses SRS-A generation by inhibiting lipoxygenase. *Int Arch Allergy Appl Immunol.* 1986;79(3):231-7. PMID: 2868995.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.