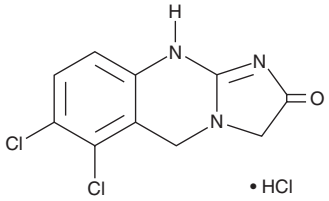
PRODUCT INFORMATION

Anagrelide (hydrochloride)

Item No. 21411

CAS Registry No.:	58579-51-4
Formal Name:	6,7-dichloro-1,5-dihydro-Imidazo[2,1-b]quinazolin-2(3H)-one, monohydrochloride
Synonyms:	BL 4162A, BMY 26538-01
MF:	$C_{10}H_7Cl_2N_3O \bullet HCl$
FW:	292.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 216, 257 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

Anagrelide (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the anagrelide (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Anagrelide (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of anagrelide (hydrochloride) in these solvents is approximately 2 and 0.25 mg/ml, respectively.

Anagrelide (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, anagrelide (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Anagrelide (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Anagrelide is an inhibitor of phosphodiesterase 3 (PDE3; IC_{50} = 36 nM for the human platelet enzyme).[1] It inhibits thrombopoietin-induced megakaryocytopoiesis of isolated human $CD34^+$ progenitor cells (IC_{50} = 26 nM).[2] Anagrelide reduces platelet aggregation induced by ADP, collagen, thrombin, or arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) in isolated rabbit platelet rich-plasma (EC_{50}s = 0.31, 0.08, 0.18, and 0.1 µg/ml, respectively).[3] It inhibits platelet thrombus formation in a dog model of electrically induced carotid artery thrombosis when administered at doses ranging from 0.5 to 5 mg/kg.[4] Formulations containing anagrelide have been used in the treatment of thrombocythemia.

References

1. Wang, G., Franklin, R., Hong, Y., *et al.* Comparison of the biological activities of anagrelide and its major metabolites in haematopoietic cell cultures. *Br. J. Pharmacol.* **146(3)**, 324-332 (2005).
2. Hong, Y., Wang, G., Gutierrez del Arroyo, A., *et al* Comparison between anagrelide and hydroxycarbamide in their activities against haematopoietic progenitor cell growth and differentiation: Selectivity of anagrelide for the megakaryocytic lineage. Leukemia **20(6)**, 1117-1122 (2006).
3. Fleming, J.S. and Buyniski, J.P. A potent new inhibitor of platelet aggregation and experimental thrombosis, anagrelide (BL-4162A). *Thromb. Res.* **15(3-4)**, 373-388 (1979).
4. Fleming, J.S. and Buyniski, J.P. Anagrelide. *New drugs annual: Cardiovascular drugs.* Scriabine, A., editor, *Raven Press* (1983).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM