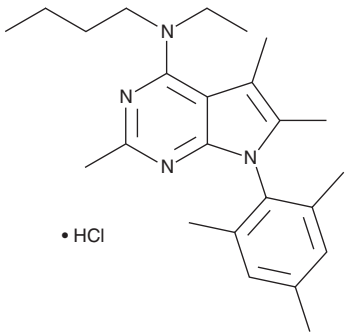
PRODUCT INFORMATION

Antalarmin (hydrochloride)

Item No. 15147

CAS Registry No.:	220953-69-5
Formal Name:	N-butyl-N-ethyl-2,5,6-trimethyl-7-(2,4,6-trimethylphenyl)-7H-pyrrolo[2,3-d]pyrimidin-4-amine, monohydrochloride
MF:	$C_{24}H_{34}N_4$ • HCl
FW:	415.0
Purity:	≥98%
UV/Vis.:	λ_{max}: 263, 312 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.

Laboratory Procedures

Antalarmin (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the antalarmin (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Antalarmin (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of antalarmin (hydrochloride) in these solvents is approximately 14, 12.5, and 20 mg/ml, respectively.

Description

Corticotropin-releasing hormone (CRH) secreted from the hypothalamus is the major regulator of pituitary corticotropin-release and consequent glucocorticoid secretion. Antalarmin is a selective, nonpeptide antagonist of the CRH receptor 1 (K_i = 1 nM) that, consequently, reduces the release of corticotropin in response to chronic stress.[1] Through its antagonism of central CRH signaling, antalarmin can reduce endocrinological, cardiovascular, and behavioral responses to stressful stimuli.[2] It has also been shown to reduce dose escalation in cocaine-addicted rats, to produce anti-inflammatory effects in arthritis models, and to suppress stress-induced gastric ulceration related to irritable bowel syndrome.[2,3]

References

1. Webster, E.L., Lewis, D.B., Torpy, D.J., *et al.* In vivo and in vitro characterization of antalarmin, a nonpeptide corticotropin-releasing hormone (CRH) receptor antagonist: Suppression of pituitary ACTH release and peripheral inflammation. *Endocrinology* **137(12)**, 5747-5750 (1996).
2. Deak, T., Nguyen, K.T., Ehrlich, A.L., *et al.* The impact of the nonpeptide corticotropin-releasing hormone antagonist antalarmin on behavioral and endocrine responses to stress. *Endocrinology* **140(1)**, 79-86 (1999).
3. Fahmy, H., Spyridaki, K., Kuppast, B., *et al.* The "homeostasis hormone" and its CRF1 receptor. From structure to function. *Hormones (Athens)* **11(3)**, 254-271 (2012).

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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