

Product Datasheet

Dabuzalgron

Catalog No. **BP-02154** · CAS **219311-44-1** · Form **free base** · Physical state **other** · Color **White to off-white** · Version **1.0** · Revision **2026-09-03**

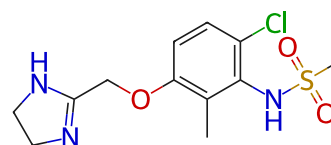
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Target Adrenergic Receptor; Apoptosis	Research area Cardiovascular Disease; Endocrinology
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Molecular formula **C₁₂H₁₆ClN₃O₃S**

Molecular weight **317.7920**

STRUCTURE



DESCRIPTION

Dabuzalgron (Ro 115-1240) is an orally active and selective α -1A adrenergic receptor agonist for the treatment of urinary incontinence. Dabuzalgron protects against Doxorubicin-induced cardiotoxicity by preserving mitochondrial function .

BIOLOGICAL ACTIVITY

In Vitro

Dabuzalgron treatment increases ERK phosphorylation in a dose-dependent fashion with an EC₅₀ of 4.8 μ M. ERK1/2 activation contributes to the cardioprotective effects of Dabuzalgron.

Dabuzalgron (10 μ M; 4 hours) protects NRVMs from cell death due to Doxorubicin (DOX).

Activation of the α 1A-AR with Dabuzalgron (10 μ M; 4 hours) mitigates the detrimental effects of DOX on mitochondrial membrane potential and abrogates the activation of important elements of the apoptotic response to mitochondrial damage.

In Vivo

Dabuzalgron (10 μ g/kg; oral gavage; twice daily; for 7 days; C57Bl6J wild-type or α 1A-AR knockout mice) treatment protects against DOX cardiotoxicity by activating the α 1A-AR. Dabuzalgron protects against the reduction in transcripts related to mitochondrial function, up-regulates PGC1 α , preserves ATP content, and reduces oxidative stress in the hearts of mice treated with DOX.

SOLUBILITY

Soluble in DMSO

REFERENCES

[1].Beak J, et al. An Oral Selective Alpha-1A Adrenergic Receptor Agonist Prevents Doxorubicin Cardiotoxicity. JACC Basic Transl Sci. 2017 Feb;2(1):39-53.

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