

PRODUCT INFORMATION



Pyrintegrin

Item No. 16179

CAS Registry No.: 1228445-38-2

Formal Name: N-(cyclopropylmethyl)-4-[[4-(3,4-dihydro-6-hydroxy-1(2H)-quinolinyl)-2-pyrimidinyl]amino]-benzenesulfonamide

MF: $C_{23}H_{25}N_5O_3S$

FW: 451.5

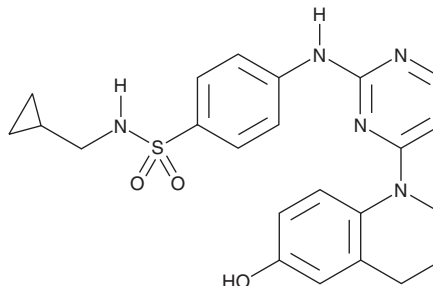
Purity: $\geq 95\%$

UV/Vis.: λ_{max} : 290 nm

Supplied as: A crystalline solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Pyrintegrin is supplied as a crystalline solid. A stock solution may be made by dissolving the pyrintegrin in the solvent of choice, which should be purged with an inert gas. Pyrintegrin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pyrintegrin in these solvents is approximately 1, 30, and 50 mg/ml.

Pyrintegrin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pyrintegrin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Pyrintegrin has a solubility of approximately 0.1 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Human embryonic stem cells (hESC), unlike murine ESC, grow *in vitro* as large flattened two dimensional colonies.¹ Dispersing these colonies, using trypsin to dissociate single hESC, results in massive cell death.¹ Pyrintegrin is a 2,4-disubstituted pyrimidine that, at 2 μM , enhances the survival of hESC more than 30-fold after trypsin-mediated dissociation.¹ It increases integrin-dependent attachment of hESC to extracellular matrices, including Matrigel™ and laminin, without significantly impacting cell proliferation.¹ Pyrintegrin increases the binding of the activated $\beta 1$ integrin-specific antibody HUTS-21 and enhances the phosphorylation of multiple growth factor receptors and their downstream kinases, PI3K and MAPK.¹

Reference

1. Xu, Y., Zhu, X., Hahm, H.S., *et al.* Revealing a core signaling regulatory mechanism for pluripotent stem cell survival and self-renewal by small molecules. *Proc. Natl. Acad. Sci. USA* **107**(18), 8129-8134 (2010).

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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