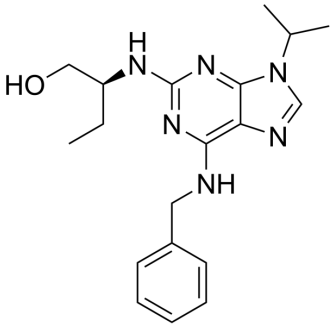
(S)-Roscovitine

Cat. No.:	HY-112403
CAS No.:	186692-45-5
Molecular Formula:	$C_{19}H_{26}N_6O$
Molecular Weight:	354.45
Target:	CDK
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(S)-Roscovitine ((S)-Seliciclib; (S)-CYC202) is a potent and cross the blood-brain barrier CDKs inhibitor. (S)-Roscovitine shows neuroprotective efficacy. (S)-Roscovitine has the potential for the research of stroke[1][2].

IC_{50} & Target

CDK1 ≤1 μM (IC_{50})	CDK2 ≤1 μM (IC_{50})	CDK5 ≤1 μM (IC_{50})	CDK7 ≤1 μM (IC_{50})
CDK9 ≤1 μM (IC_{50})			

In Vivo

(S)-Roscovitine (25 mg/kg; i.p.; 15 min before and 1 hr after pMCAo) shows neuroprotective efficacy in an adult mouse model of permanent MCAo (middle cerebral artery occlusion) [2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	20-25 g, P60 male C57 b/6 mice[2]
Dosage:	25 mg/kg
Administration:	I.p.; at 15 min before and 1 hr after pMCAo
Result:	Decreased of the total infarct volume.

REFERENCES

[1]. Le Roy L, et al. Cellular and Molecular Mechanisms of R/S-Roscovitine and CDKs Related Inhibition under Both Focal and Global Cerebral Ischemia: A Focus on Neurovascular Unit and Immune Cells. Cells. 2021 Jan 8;10(1):104.

[2]. Menn B, et al. Delayed treatment with systemic (S)-roscovitine provides neuroprotection and inhibits in vivo CDK5 activity increase in animal stroke models. PLoS One. 2010 Aug 12;5(8):e12117.

Caution: Product has not been fully validated for medical applications. For research use only.

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