

OSK-1

Cat. No.:	HY-P3316
CAS No.:	183815-75-0
Molecular Formula:	C ₁₇₇ H ₃₀₀ N ₅₆ O ₄₆ S ₈
Molecular Weight:	4205.17
Target:	Potassium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	OSK-1 is a potent K _v channel blocker with IC ₅₀ s of 0.6 nM, 5.4 nM, 0.014 nM for K _v 1.1, K _v 1.2 and K _v 1.3, respectively. OSK1 is a moderate blocker of Ca ²⁺ -activated K _{Ca} 3.1 channel with an IC ₅₀ of 225 nM. OSK-1 belongs to α-KTx3 toxins and is used as an immunosuppressive agent ^[1] .
IC ₅₀ & Target	IC ₅₀ : 0.6 nM (K _v 1.1), 5.4 nM (K _v 1.2), 0.014 nM (K _v 1.3) and 225 nM (K _{Ca} 3.1) ^[1]
In Vitro	OSK1 has no effect on K _{Ca} 2.1, K _{Ca} 2.2, K _{Ca} 2.3 and K _{Ca} 1.1 channels when in the micromolar concentration range, whereas it shows a moderate activity on K _{Ca} 3.1 channel (also referred to as IK1 or SK4) with an IC ₅₀ value of 225 nM ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	OSK1 is lethal in mice by intracerebroventricular injection, with a LD ₅₀ (50% lethal dose) value of 2 µg/kg ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Stéphanie Mouhat, et al. K⁺ channel types targeted by synthetic OSK1, a toxin from Orthochirus scrobiculosus scorpion venom. *Biochem J.* 2005 Jan 1;385(Pt 1):95-104.

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

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