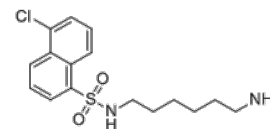


Product Name : Sarcomere inhibitor W7
Cat. No. : PC-38788
CAS No. : 65595-90-6
Molecular Formula : C₁₆H₂₁ClN₂O₂S
Molecular Weight : 340.866
Target : Other Targets
Solubility : 10 mM in DMSO



Biological Activity

Sarcomere inhibitor W7 is a small-molecule **sarcomere** Ca²⁺ desensitizer, decreases intact cardiac myocyte contractility in a Ca²⁺ transient amplitude-independent manner.

W7 binds to cardiac troponin C (**cTnC**) and decrease Ca²⁺-binding affinity, resulting in Ca²⁺ desensitization of the myofilament.

W7 reduces contractility in a Ca²⁺-independent manner in adult living cardiac myocytes.

W7 exhibits a rapid effect to correct contractile dysfunction in both acquired (alkalosis) and inherited (RCM) forms of hyper-Ca²⁺-sensitive states at the myocyte level and whole heart levels.

References

Thompson BR, et al. *Am J Physiol Heart Circ Physiol*. 2016 Jul 1;311(1):H36-43.

Cai F, et al. *Biochemistry*. 2018 Nov 20;57(46):6461-6469.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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