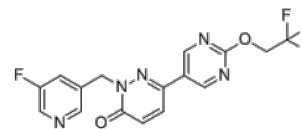


Product Name : EDG-5506
Cat. No. : PC-20390
CAS No. : 2417395-15-2
Molecular Formula : C₁₆H₁₁F₄N₅O₂
Molecular Weight : 381.29
Target : Myosin
Solubility : 10 mM in DMSO



Biological Activity

EDG-5506 (Sevasemten) is a potent, selective, orally active inhibitor of **fast skeletal muscle myosin**, inhibits fast myofibril ATPase from rabbit psoas muscle with IC₅₀ of 0.2 uM.

EDG-5506 is inactive against cardiac and slow bovine masseter skeletal myofibrils with an IC₅₀ greater than 100 uM.

EDG-5506 is also a potent inhibitor of other mixed fast myosin myofibrils (mouse gastroc IC₅₀ 0.4 uM, 21% IIa, 15% IIx, 56%IIb; mouse TA IC₅₀ 0.4 uM, mixed IIa, IIx, IIb suggesting equal potency against all fast skeletal myosin proteins.

EDG-5506 inhibits the enzymatic activity of fast skeletal S1 from rabbit psoas but not porcine ventricular cardiac S1 or the more unrelated smooth muscle S1 with an IC₅₀ of 0.11 uM and >100 uM, respectively.

EDG-5506 effectively reduces dye uptake in ex vivo lengthening contraction of mdx EDL muscle using a membrane-impermeable dye.

EDG-5506 protects skeletal muscle in mdx and DBA/2 mdx mice in vivo, with no effect on body or muscle weight.

EDG-5506 lowers disease biomarkers and improves physical function in duchenne muscular dystrophy (DMD) dogs.

References

Russell AJ, et al. *J Clin Invest.* 2023 Mar 30:e153837.

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

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