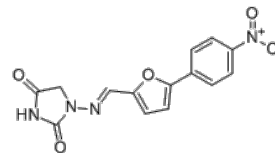


Product Name : Dantrolene
Cat. No. : PC-20389
CAS No. : 7261-97-4
Molecular Formula : C₁₄H₁₀N₄O₅
Molecular Weight : 314.26
Target : Other Targets
Solubility : 10 mM in DMSO



Biological Activity

Dantrolene (F368) is a muscle relaxant, non-competitively inhibitor of human erythrocyte **glutathione reductase** with K_i and IC₅₀ values are 111.6 μM and 52.3 μM, respectively.

Dantrolene is a **ryanodine receptor** (RyR) antagonist and Ca²⁺ signaling stabilizer.

Dantrolene interferes with calcium release from the sarcoplasmic reticulum and thus to inhibit excitation-contraction coupling.

Dantrolene depresses excitation-contraction coupling in muscle fibers by inhibiting calcium release from the sarcoplasmic reticulum.

Dantrolene affects the membrane calcium channel of smooth muscle cells and inhibits calcium influx.

Dantrolene binds to domain 601-620 of RyR2 and corrects defective inter-domain interaction within RyR2 in failing hearts.

References

W J Meyler, et al. **Eur J Pharmacol.** 1979 Feb 1;53(4):335-42.

F Zhao, et al. **J Biol Chem.** 2001 Apr 27;276(17):13810-6.

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

E-mail: tech@probechem.com