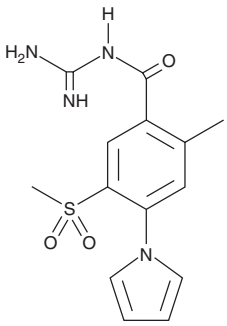
PRODUCT INFORMATION

Eniporide

Item No. 20984



CAS Registry No.:	176644-21-6
Formal Name:	N-(aminoiminomethyl)-2-methyl-5-(methylsulfonyl)-4-(1H-pyrrol-1-yl)-benzamide
MF:	$C_{14}H_{16}N_4O_3S$
FW:	320.4
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Eniporide is supplied as a crystalline solid. A stock solution may be made by dissolving the eniporide in the solvent of choice, which should be purged with an inert gas. Eniporide is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of eniporide in these solvents is approximately 5 and 20 mg/ml, respectively.

Eniporide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, eniporide should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Eniporide has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Eniporide is a selective inhibitor of human Na^+/H^+ exchanger isoform 1 (NHE-1) (IC_{50} = 4.5 nM).[1] Inhibition with eniporide prevents calcium overload-induced myocardial ischemia-reperfusion injury *in vitro* and *in vivo*.[2-5]

References

1. Kawamoto, T., Kimura, H., Kusumoto, K., *et al.* Potent and selective inhibition of the human Na^+/H^+ exchanger isoform NHE1 by a novel aminoguanidine derivative T-162559. *Eur. J. Pharmacol.* **420(1)**, 1-8 (2001).
2. Counillon, L., Scholz, W., Lang, H.J., *et al.* Pharmacological characterization of stably transfected Na^+/H^+ antiporter isoforms using amiloride analogs and a new inhibitor exhibiting anti-ischemic properties. *Mol. Pharmacol.* **44(5)**, 1041-1045 (1993).
3. Masereel, B., Pochet, L., and Laeckmann, D. An overview of inhibitors of Na^+/H^+ exchanger. *Eur. J. Med. Chem.* **38(6)**, 547-554 (2003).
4. An, J., Varadarajan, S.G., Camara, A.C., *et al.* Blocking Na^+/H^+ exchange reduces $[Na^+]_i$ and $[C^{a2+}]_i$ load after ischemia and improves function in intact hearts. *Am. J. Physiol. Heart Circ. Physiol.* **281(6)**, H2398-H2409 (2001).
5. Knight, D.R., Smith, A.H., Flynn, D.M., *et al.* A novel sodium-hydrogen exchanger isoform-1 inhibitor, zoniporide, reduces ischemic myocardial injury in vitro and in vivo. *J. Pharmacol. Exp. Ther.* **297(1)**, 254-259 (2001).

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