# Product Data Sheet

Product Name: Alrestatin sodium
Cat. No.: GC35309

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 51876-97-2 | | |
| SMILES | O=C([O-])CN(C(C1=CC=CC2=CC=CC3=C12)=O)C3=O.[Na+] | | |
| Formula | $C_{14}H_8NNaO_4$ | M.Wt | 277.21 |
| Solubility | Soluble in DMSO | Storage | Store at -20°C |
| General tips | For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months. | | |
| Shipping Condition | Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request. | | |
| Structure | Alrestatin sodium | | |

## Background

Alrestatin is an inhibitor of aldose reductase ($IC_{50}$ = 1.5 ?M for rat lens enzyme).[1] It is selective for rat lens aldose reductase over rat kidney aldehyde reductase ($IC_{50}$ = 58 ?M). Alrestatin reduces basal and tyramine-induced norepinephrine release in rat pancreatic preparations.[2] *In vivo*, alrestatin (0.75 mmol/kg) increases plasma insulin levels in fasted anesthetized rats. Alrestatin inhibits the lens and sciatic nerve accumulation of polyols in a rat model of streptozotocin-induced diabetes.[3] It also inhibits gastric acid secretion and ulcer formation induced by pyloric ligation in rats ($ED_{50}$s = 90 and 330 mg/kg, respectively).

1.Sato, S., and Kador, P.F.Inhibition of aldehyde reductase by aldose reductase inhibitorsBiochem. Pharmacol.40(5)1033-1042(1990) 2.Kobric, M., and Lippmann, W.Effect of alrestatin sodium on glucose-stimulated insulin secretion in the fasted anaesthetized ratHorm. Metab. Res.10(6)495-500(1978) 3.Lippmann, W., Seethaler, K., Borella, L.E., et al.Alrestatin: Gastric acid antisecretory-antiulcer activity in the ratDigestion18(1-2)35-44(1978)

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