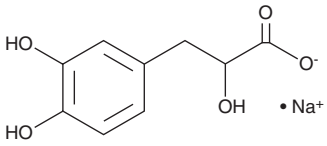
PRODUCT INFORMATION

Danshensu (sodium salt)

Item No. 27222

CAS Registry No.:	67920-52-9
Formal Name:	α,3,4-trihydroxy-benzenepropanoic acid, monosodium salt
MF:	$C_9H_9O_5$ • Na
FW:	220.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 217, 257, 283, 330 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

Danshensu (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the danshensu (sodium salt) in the solvent of choice, which should be purged with an inert gas. Danshensu (sodium salt) is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml. Danshensu (sodium salt) is also slightly soluble in ethanol and dimethyl formamide.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of danshensu (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of danshensu (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Danshensu is a salvianolic acid and the major component of *S. miltiorrhiza* (Danshen) and has diverse biological activities.[1-4] It reduces expression of the autophagy-associated proteins p62, LC3-II, and Beclin-1 and the apoptosis-related proteins Bax and caspase-3, prevents cardiomyocyte damage, and increases heart rate, coronary flow (CF), and left ventricular developed pressure (LVDP) in an isolated rat heart model of ischemia and reperfusion injury.[1] Danshensu (60 mg/kg per day) reduces infarct size and improves left ventricular function in a rat model of myocardial infarction.[2] It enhances radiation-induced tumor cell death in a Lewis lung carcinoma mouse xenograft model.[3] Danshensu also decreases infarct volume, neuronal apoptosis, production of TNF-α, IL-1β, and IL-6, and superoxide dismutase (SOD) and glutathione peroxidase (GPx) activity in a rat model of cerebral ischemia and reperfusion injury.[4]

References

1. Fan, G., Yu, J., Asare, P.F., *et al. J. Cell Mol. Med.* **20(10),** 1908-1919 (2016).
2. Yin, Y., Duan, J., Guo, C., *et al. Eur. J. Pharmacol.* **814**, 274-282 (2017).
3. Cao, H.Y., Ding, R.L., Li, M., *et al. Oncol. Lett.* **13(2),** 605-612 (2017).
4. Xu, H., Liu, W., Liu, T., *et al. Oncotarget* **8(70),** 115434-115443 (2017).

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