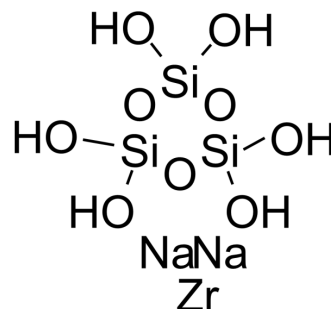


Sodium zirconium cyclosilicate

Cat. No.:	HY-119572
CAS No.:	17141-74-1
Molecular Formula:	H ₆ O ₉ Si ₃ ·2Na·Zr
Molecular Weight:	371.5
Target:	Others
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	Sodium zirconium cyclosilicate is an orally administered, non-absorbed, novel, inorganic microporous zirconium silicate compound, is a highly selective cation exchanger that selectively removes excess K ⁺ in vivo. Sodium zirconium cyclosilicate can be used in research of chronic kidney disease (CKD) ^{[1][2]} .
In Vitro	Sodium zirconium cyclosilicate (ZS-9) is an inorganic cation exchange crystalline compound that has a high capacity to selectively entrap monovalent cations, specifically excess K ⁺ and ammonium ions. Sodium zirconium cyclosilicate has the exchange capacities for the divalent ions Ca ²⁺ and Mg ²⁺ are below 0.05 mEq/g, and a >25-fold selectivity for K ⁺ over either Ca ²⁺ or Mg ²⁺ ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Sodium zirconium cyclosilicate (ZS-9; 2-6 g/kg; p.o.; daily, for 5 d) is a recovery in feces of Sprague-Dawley rats and can efficient uptake and removal of potassium ions ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Model:	Sprague-Dawley rats ^[2]
Dosage:	2, 4, and 6 g/kg
Administration:	Oral administration; daily, for 5 days
Result:	Had 99% fecal recovery in rats. Uptake and removal of potassium ions in a dose-dependent manner.

REFERENCES

[1]. Stavros F, et, al. Characterization of structure and function of ZS-9, a K⁺ selective ion trap. PLoS One. 2014 Dec 22;9(12):e114686.

[2]. Ash SR, et, al. A phase 2 study on the treatment of hyperkalemia in patients with chronic kidney disease suggests that the selective potassium trap, ZS-9, is safe and efficient. Kidney Int. 2015 Aug;88(2):404-11.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA