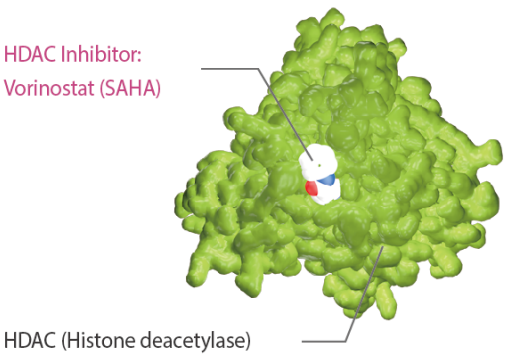
URAT1

Urate transporter 1;SLC22A12



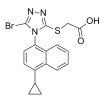
URAT1, a member of the OAT (organic anion transporter) family was first cloned from the human kidney, where it is localized to the apical (brush border) membrane of renal proximal tubular cells. URAT1 mediates the reabsorption of uric acid, thereby regulating blood uric acid concentrations. Impairment in URAT1 activity, either due to polymorphisms, or drug-drug interactions, can have toxicological consequences. In the kidney, URAT1 is distributed along the renal tubular cell membrane and involved in reabsorption and excretion of uric acid, organic acids, drugs and their metabolites. Uric acid is taken up by OAT1 and OAT3 from the blood and reabsorbed into renal tubular cells via URAT1, in exchange for dicarboxylic acid. URAT1, along with OAT4 mediates uptake of uric acid from the renal tubule into renal tubular cells in exchange for organic anions such as lactic acid and nicotinic acid. This exchange is electroneutral and can be trans-stimulated by Cl^- gradients and gradients of lactate transported by the sodium-monocarboxylate transporter. In the salivary glands, URAT1 is distributed along the entire surface, including the ductal and acinar cells, suggesting a role in the transport of organic acids and uric acid in the whole salivary gland.

URAT1 Inhibitors & Modulators

Lesinurad
(RDEA594) Cat. No.: HY-15258

Bioactivity: Lesinurad is a **URAT1** and **OAT** inhibitor, is determined to be a substrate for the kidney transporters **OAT1** and **OAT3** with $\mathbf{K_m}$ values of 0.85 and 2 μM, respectively.

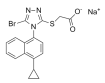
Purity: 99.96%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg



Lesinurad sodium
(RDEA-594 sodium) Cat. No.: HY-15258A

Bioactivity: Lesinurad sodium is a **URAT1** and **OAT** inhibitor, is determined to be a substrate for the kidney transporters **OAT1** and **OAT3** with $\mathbf{K_m}$ values of 0.85 and 2 μM, respectively.

Purity: 99.92%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg, 100 mg, 200 mg



Verinurad
(RDEA3170) Cat. No.: HY-16733

Bioactivity: Verinurad (RDEA3170) is a highly potent and specific **URAT1** inhibitor with an $\mathbf{IC_{50}}$ of 25 nM [1].

Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 50 mg