

T-1095

## Chemical Properties

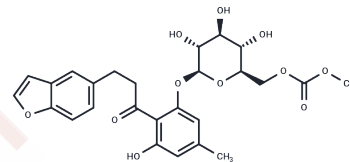
CAS No. : 209746-59-8

Formula: C<sub>26</sub>H<sub>28</sub>O<sub>11</sub>

Molecular Weight: 516.49

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	T-1095 is an inhibitor of renal glucose reabsorption and the expression of Na <sup>+</sup> -glucose cotransporters (SGLTs) and facilitative glucose transporter 2 (GLUT2).
Targets(IC50)	SGLT, transporter
In vivo	Administration of 0.03% and 0.1% (wt/wt diet) T-1095 to STZ rats for 4 weeks improved the hyperglycemia and dose-dependently decreased HbA <sub>1c</sub> [1]. Moreover, treatment with 0.1% (wt/wt diet) T-1095 in STZ rats for 8 weeks not only reduced blood glucose and HbA <sub>1c</sub> levels but also prevented the elevation of urinary albumin levels and kidney weight and the development of epithelial vacuolation[1]. The expression of renal SGLT2, a major glucose transporter in the kidney, was not different in normal, STZ, and T-1095-treated STZ rats. In contrast, the elevated renal GLUT2 level in STZ rats was suppressed by T-1095[1].

## Solubility Information

Solubility	DMSO: 60 mg/mL (116.17 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.9361 mL	9.6807 mL	19.3615 mL
5 mM	0.3872 mL	1.9361 mL	3.8723 mL
10 mM	0.1936 mL	0.9681 mL	1.9361 mL
50 mM	0.0387 mL	0.1936 mL	0.3872 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Adachi T, et al. T-1095, a renal Na<sup>+</sup>-glucose transporter inhibitor, improves hyperglycemia in streptozotocin-induced diabetic rats. *Metabolism*. 2000 Aug;49(8):990-5.

Nunoi K, et al. Beneficial effect of T-1095, a selective inhibitor of renal Na<sup>+</sup>-glucose cotransporters, on metabolic index and insulin secretion in spontaneously diabetic GK rats. *Clin Exp Pharmacol Physiol*. 2002 May-Jun;29(5-6):386-90.

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