

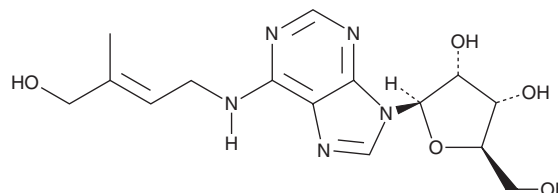
# PRODUCT INFORMATION



## *trans*-Zeatin Riboside

Item No. 30747

<b>CAS Registry No.:</b>	6025-53-2
<b>Formal Name:</b>	N-[(2E)-4-hydroxy-3-methyl-2-buten-1-yl]-adenosine
<b>Synonyms:</b>	Ribosyl- <i>trans</i> -Zeatin, Zeatin Ribonucleoside
<b>MF:</b>	C <sub>15</sub> H <sub>21</sub> N <sub>5</sub> O <sub>5</sub>
<b>FW:</b>	351.4
<b>Purity:</b>	≥98%
<b>UV/Vis.:</b>	λ <sub>max</sub> : 270 nm
<b>Supplied as:</b>	A crystalline solid
<b>Storage:</b>	-20°C
<b>Stability:</b>	≥2 years
<b>Item Origin:</b>	Synthetic



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

### Laboratory Procedures

*trans*-Zeatin riboside is supplied as a crystalline solid. A stock solution may be made by dissolving the *trans*-zeatin riboside in the solvent of choice, which should be purged with an inert gas. *trans*-Zeatin riboside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of *trans*-zeatin riboside in these solvents is approximately 30 mg/ml.

*trans*-Zeatin riboside is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, *trans*-zeatin riboside should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. *trans*-Zeatin riboside has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

*trans*-Zeatin riboside is a cytokinin that has been found in squash root xylem sap.<sup>1</sup> It suppresses hypocotyl adventitious root formation in cucumber plants when used at concentrations ranging from 0.001 to 1 μM. *trans*-Zeatin riboside (10 μM) increases the activity of superoxide dismutase (SOD), ascorbate peroxidase (APX), catalase (CAT), and guaiacol peroxidase (POD) in the leaves, as well as improves turf quality and delays leaf wilting in a creeping bentgrass model of drought stress.<sup>2</sup>

### References

1. Kuroha, T., Kato, H., Asami, T., *et al.* A *trans*-zeatin riboside in root xylem sap negatively regulates adventitious root formation on cucumber hypocotyls. *J. Exp. Bot.* **53(378)**, 2193-2200 (2002).
2. Chang, Z., Liu, Y., Dong, H., *et al.* Effects of cytokinin and nitrogen on drought tolerance of creeping bentgrass. *PLoS One* **11(4)**, e0154005 (2016).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM