



LKT Laboratories, Inc.

## Sitagliptin Phosphate Monohydrate

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### Product Information

Product ID S3476

CAS No. 654671-77-9

**Chemical Name** (3R)-3-amino-1-[3-(trifluoromethyl)-6,8-dihydro-5H-[1,2,4]triazolo [4,3-a]pyrazin-7-yl]-4-(2,4,5-trifluorophenyl)butan-1-one; phosphoric acid; hydrate

**Synonym** MK-0431

**Formula**  $C_{16}H_{15}F_6N_5O \cdot H_3PO_4 \cdot H_2O$

**Formula Wt.** 523.32

**Melting Point**

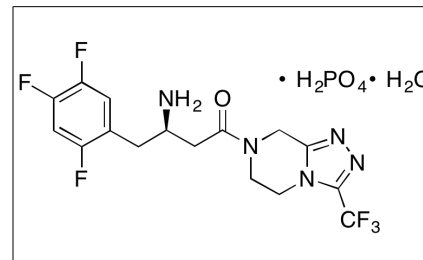
**Purity**  $\geq 98\%$

**Solubility**

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Sitagliptin is an anti-diabetic/anti-hyperglycemic compound that inhibits dipeptidyl peptidase 4 (DPP4); sitagliptin also exhibits antioxidative and cardioprotective benefit. Sitagliptin decreases release of lactate dehydrogenase, malondialdehyde, and creatine kinase MB, and increases levels of glutathione peroxidase, glucagon-like peptide 1 (GLP-1), and superoxide dismutase; this compound also decreases expression of caspases 3 and 9, causing decreases in cardiac apoptosis and improvements in cardiac function. In hypertensive rats, sitagliptin increases levels of GLP-1, the GLP-1 receptor, cAMP, and eNOS and also increases activation of AMPK, improving vascular endothelial function.



### Pricing and Availability

**Bulk quantities available upon request**

| Product ID | Size   | List Price |
|------------|--------|------------|
| S3476      | 10 mg  | \$63.00    |
| S3476      | 25 mg  | \$89.30    |
| S3476      | 100 mg | \$183.80   |

**References** Chang G, Zhang P, Ye L, et al. Protective effects of sitagliptin on myocardial injury and cardiac function in an ischemia/reperfusion rat model. *Eur J Pharmacol.* 2013 Oct 15;718(1-3):105-13. PMID: 24041927.

Kubota Y, Miyamoto M, Takagi G, et al. The dipeptidyl peptidase-4 inhibitor sitagliptin improves vascular endothelial function in type 2 diabetes. *J Korean Med Sci.* 2012 Nov;27(11):1364-70. PMID: 23166419.

Liu L, Liu J, Wong WT, et al. Dipeptidyl peptidase 4 inhibitor sitagliptin protects endothelial function in hypertension through a glucagon-like peptide 1-dependent mechanism. *Hypertension.* 2012 Sep;60(3):833-41. PMID: 22868389.

Waget A, Cabou C, Masseboeuf M, et al. Physiological and pharmacological mechanisms through which the DPP-4 inhibitor sitagliptin regulates glycemia in mice. *Endocrinology.* 2011 Aug;152(8):3018-29. PMID: 21673098.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.