LKT Laboratories, Inc.

Sitagliptin Phosphate Monohydrate

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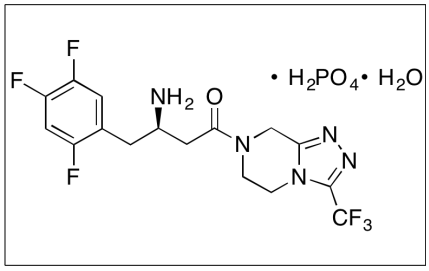
Product Information

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 ≥98%
Solubility

Bulk quanitites available upon request

Product ID	Size
S3476	10 mg
S3476	25 mg
S3476	100 mg

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.

References

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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.