

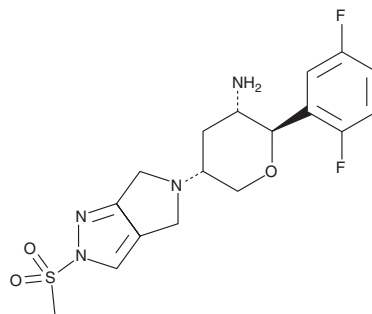
# PRODUCT INFORMATION



## MK-3102

Item No. 21454

**CAS Registry No.:** 1226781-44-7  
**Formal Name:** (2R,3S,5R)-2-(2,5-difluorophenyl)-5-[2,6-dihydro-2-(methylsulfonyl)pyrrolo[3,4-c]pyrazol-5(4H)-yl]tetrahydro-2H-pyran-3-amine  
**Synonym:** Omarigliptin  
**MF:** C<sub>17</sub>H<sub>20</sub>F<sub>2</sub>N<sub>4</sub>O<sub>3</sub>S  
**FW:** 398.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 268 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

MK-3102 is supplied as a crystalline solid. A stock solution may be made by dissolving the MK-3102 in the solvent of choice, which should be purged with an inert gas. MK-3102 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MK-3102 in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

### Description

MK-3102 is an inhibitor of dipeptidyl peptidase 4 (DPP-4; IC<sub>50</sub> = 1.6 nM).<sup>1</sup> It is selective for DPP-4 over several proteases, including DPP-7, DPP-8, DPP-9, and fibroblast activation protein (FAP; IC<sub>50</sub>s = >67 μM for all), as well as the ion channels delayed-rectifier potassium current (I<sub>kr</sub>), L-type voltage-gated calcium channel 1.2 (Ca<sub>v</sub>1.2), and voltage-gated sodium channel 1.5 (Na<sub>v</sub>1.5; IC<sub>50</sub>s = >30 μM for all) and a panel of 168 enzymes (IC<sub>50</sub>s = >10 μM for all). MK-3102 (0.3 mg/kg) reduces blood glucose levels by 51% in mice.

### Reference

1. Biftu, T., Sinha-Roy, R., Chen, P., *et al.* Omarigliptin (MK-3102): A novel long-acting DPP 4 inhibitor for once-weekly treatment of Type 2 Diabetes. *J. Med. Chem.* **57**(8), 3205-3212 (2014).

#### 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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