

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



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Laborgeräte & Service

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# Lieferung & Zahlungsart

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



## **DBPR108**

Item No. 41117

CAS Registry No.: 1186426-66-3

Formal Name: 1-[2S-[[1,1-dimethyl-3-oxo-3-(1-

pyrrolidinyl)propyl]amino]acetyl]-4S-

fluoro-2-pyrrolidinecarbonitrile

Synonym: Prusogliptin MF:  $C_{16}H_{25}FN_4O_2$ 

FW: 324.4 **Purity:** ≥98% Supplied as: A 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**

DBPR108 is supplied as a solid. A stock solution may be made by dissolving the DBPR108 in the solvent of choice, which should be purged with an inert gas. DBPR108 is soluble (≥10 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of DBPR108 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of DBPR108 is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

#### Description

DBPR108 is an inhibitor of dipeptidyl peptidase 4 (DPP-4;  $IC_{50}$  = 0.015  $\mu$ M).<sup>1</sup> It is selective for DPP-4 over DPP-8 and DPP-9 (IC<sub>50</sub>s = >50  $\mu$ M for both). DBPR108 (10 mg/kg) increases plasma levels of glucagon-like peptide 1 (GLP- $\overline{1}$ ) and insulin in rats.  $\overline{1}$  It reduces blood glucose levels in an oral glucose tolerance test in mice when administered at a dose of 3 mg/kg. DBPR108 (0.1 mg/kg), alone and in combination with the biguanide metformin (Item No. 13118), decreases blood glucose levels in an oral glucose tolerance test in a mouse model of high-fat diet-induced obesity.<sup>2</sup>

#### References

- 1. Yeh, T.-K., Tsai, T.-Y., Hsu, T., et al. (25,45)-1-[2-(1,1-dimethyl-3-oxo-3-pyrrolidin-1-yl-propylamino) acetyl]-4-fluoro-pyrrolidine-2-carbonitrile: A potent, selective, and orally bioavailable dipeptide-derived inhibitor of dipeptidyl peptidase IV. Bioorg. Med. Chem. Lett. 20(12), 3596-3600 (2010).
- Yeh, K.-C., Yeh, T.-K., Huang, C.-Y., et al. DBPR108, a novel dipeptidyl peptidase-4 inhibitor with antihyperglycemic activity. Life Sci. 278, 119574 (2021).

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

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.

### WARRANTY AND LIMITATION OF REMEDY

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