

## PG-931

<b>Cat. No.:</b>	HY-P1208
<b>CAS No.:</b>	667430-81-1
<b>Molecular Formula:</b>	C <sub>59</sub> H <sub>85</sub> N <sub>15</sub> O <sub>11</sub>
<b>Molecular Weight:</b>	1180.4
<b>Sequence Shortening:</b>	Ac-{Nle}-DP-{D-Phe}-RWKPV-NH <sub>2</sub> (Lactam bridge:Asp <sup>2</sup> -Lys <sup>7</sup> )
<b>Target:</b>	Melanocortin Receptor
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	PG-931, an analog of SHU 9119 (HY-P0227), is a potent melanocortin 4 (MC4) receptor (IC <sub>50</sub> =0.58 nM) agonist and is more selective than for the hMC3R (IC <sub>50</sub> =55 nM) or the hMC5R (IC <sub>50</sub> =2.4 nM). PG-931 can reverse haemorrhagic shock and prevent multiple organ damage in vivo <sup>[2]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 0.58 nM (melanocortin 4 receptor) IC <sub>50</sub> : 2.4 nM (melanocortin 5 receptor) IC <sub>50</sub> : 55 nM (melanocortin 3 receptor) <sup>[1]</sup>								
<b>In Vivo</b>	PG-931 (intravenous injection; 13-10 <sup>8</sup> nmol/kg; single dose) produces a dose-dependent restoration of cardiovascular and respiratory functions, and improved survival in Wistar rats with haemorrhagic shock <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table> <tr> <td>Animal Model:</td> <td>Wistar rats<sup>[2]</sup></td> </tr> <tr> <td>Dosage:</td> <td>13-10<sup>8</sup> nmol/kg</td> </tr> <tr> <td>Administration:</td> <td>Intravenous injection; single dose</td> </tr> <tr> <td>Result:</td> <td>Exhibitd an anti-shock effect occurred at nanomolar doses.</td> </tr> </table>	Animal Model:	Wistar rats <sup>[2]</sup>	Dosage:	13-10 <sup>8</sup> nmol/kg	Administration:	Intravenous injection; single dose	Result:	Exhibitd an anti-shock effect occurred at nanomolar doses.
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### REFERENCES

- [1]. D Giuliani, et al. Selective melanocortin MC4 receptor agonists reverse haemorrhagic shock and prevent multiple organ damage. Br J Pharmacol
- [2]. P Grieco, et al. Extensive structure-activity studies of lactam derivatives of MT-II and SHU-9119: their activity and selectivity at human melanocortin receptors 3, 4, and 5. J Pept Res

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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