**Europa Bioproducts Ltd**

15-17 North Street ● Wicken
Ely ● Cambridge ● CB7 5XW

Tel: 0044 (0)1353-721118
Fax: 0044 (0)1353-624589

# NOR 5

| Item# | Unit Size |
|---|---|
| N448-10 | 10 mg |

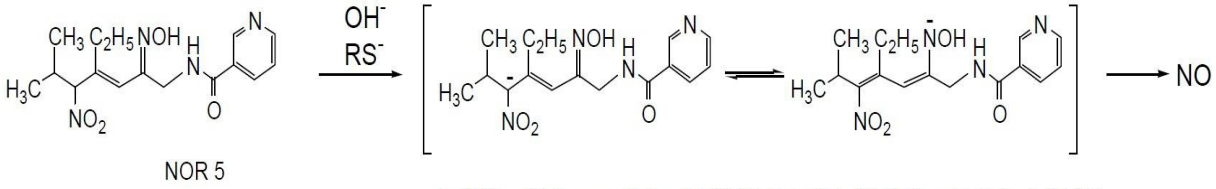
Chemical Name: (+)-N-{(E)-4-Ethyl-3-[(Z)-hydroxyimino]-6-methyl-5-nitro-3- heptenyl}-3-pyridinecarboxamide
Appearance: White or slightly yellow powder
Purity: ≥98.0% (HPLC)
MW: 334.37, $C_{16}H_{22}N_4O_4$

Storage Condition: -20ºC, protect from light and moisture
Shipping Condition: ambient temperature

## Product Description of NOR Compounds

NORs are ideal NO donors with completely different chemical structures from the other NO donors. Although NORs do not have any $ONO_2$ or ONO moiety, they spontaneously release NO at a steady rate. Even though the NO release mechanism of NOR has not been completely determined, it is confirmed that the byproducts do not possess any significant bioactivities. NOR 3, isolated from Streptomyces genseosporeus, is reported to have strong vasodilatory effects on rat and rabbit aortas and dog coronary arteries. Its activity ($ED_{50}$=1 nM) is 300 times that of isosorbide dinitrate (ISDN). NOR 3 also increases the plasma cyclic GMP levels, whereas ISDN does not. NOR is a potent inhibitor of platelet aggregation and thrombus formation. NOR 3 ($IC_{50}$=0-7 mM) effectively inhibits 100% of ADP-initiated human platelet Aggregation, whereas ISDN inhibits only 32% of the total aggregation, even at 100 mM concentrations. NOR 3 has also been reported to have antianginal and cardioprotective effects in the ischemia/reperfusion system. In the rat methacholin-induced coronary vasospasm model, NOR 3 suppressed the elevation of the ST segment dose-dependently and significantly at 1 mg per kg. On the other hand, ISDN suppressed it significantly at 3.2 mg per kg. The difference in the NO release rate of NOR reagents was reflected even on the in vivo hypotensive effects. NOR may also be used orally in a 0.5% methylcellulose suspension. NOR is relatively stable in DMSO solution. NOR 1, which has the shortest half-life, is a promising reagent for making NO standard solutions for calibration. For the preparation of the standard solution, a precisely diluted NOR 1/DMSO solution is added to the buffer solutions.

## Reaction of NO release




NOR 5

half-life: 20 hours, 0.5 mM NOR 5 in 0.1 M PBS, pH 7.4 at 37 °C

E.mail: info@europa-bioproducts.com
**Web site: http://www.europa-bioproducts.com**
Registered Office: 15-17 North Street, Wicken, Ely, Cambridgeshire CB7 5XW
Registered Number: 2703381

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