

# PRODUCT INFORMATION

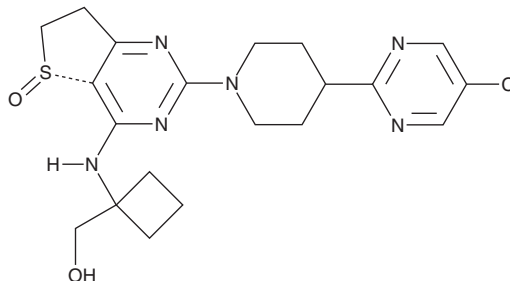


## Nerandomilast

Item No. 44975

**CAS Registry No.:** 1423719-30-5  
**Formal Name:** 1-[[[(5R)-2-[4-(5-chloro-2-pyrimidinyl)-1-piperidinyl]-6,7-dihydro-5-oxidothieno[3,2-d]pyrimidin-4-yl]amino]-cyclobutanemethanol

**Synonym:** BI-1015550  
**MF:** C<sub>20</sub>H<sub>25</sub>ClN<sub>6</sub>O<sub>2</sub>S  
**FW:** 449.0  
**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.

### Description

Nerandomilast is an inhibitor of phosphodiesterase 4B (PDE4B; IC<sub>50</sub> = 0.01 μM).<sup>1</sup> It is selective for PDE4B over PDE4A, PDE4C, and PDE4D (IC<sub>50</sub>s = 0.248, 8.7, and 0.091 μM, respectively), PDE7A, PDE3A, PDE1C, and PDE9A (IC<sub>50</sub>s = 14, 120, 46, and >100 μM, respectively), and does not inhibit PDE2A, PDE5, or PDE6. Nerandomilast inhibits LPS-induced TNF-α release and phytohemagglutinin P-induced IL-2 release in isolated human peripheral blood mononuclear cells (PBMCs; IC<sub>50</sub>s = 0.035 and 0.009 μM, respectively). It exhibits a lower emetic potential than roflumilast (Item No. 15141) in Asian house shrews. Nerandomilast (12.5 mg/kg) reduces decreases in forced vital capacity and static lung volume in a mouse model of pulmonary fibrosis bleomycin-induced. Formulations containing nerandomilast have been used in the treatment of idiopathic pulmonary fibrosis.

### Reference

1. Herrmann, F.E., Hesslinger, C., Wollin, L., *et al.* BI 1015550 is a PDE4B inhibitor and a clinical drug candidate for the oral treatment of idiopathic pulmonary fibrosis. *Front. Pharmacol.* **13**, 838449 (2022).

**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.

**WARRANTY AND LIMITATION OF REMEDY**  
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