



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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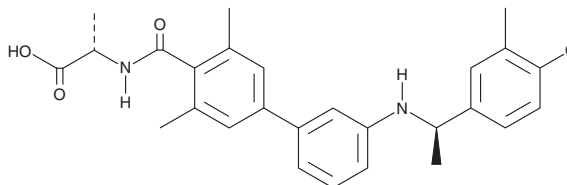
# PRODUCT INFORMATION



## NIBR0213

Item No. 21513

**CAS Registry No.:** 1233332-14-3  
**Formal Name:** N-[[3'-[[[(1R)-1-(4-chloro-3-methylphenyl)ethyl]amino]-3,5-dimethyl[1,1'-biphenyl]-4-yl]carbonyl]-L-alanine  
**MF:** C<sub>27</sub>H<sub>29</sub>ClN<sub>2</sub>O<sub>3</sub>  
**FW:** 465.0  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 212, 249, 316 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

NIBR0213 is supplied as a crystalline solid. A stock solution may be made by dissolving the NIBR0213 in the solvent of choice, which should be purged with an inert gas. NIBR0213 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of NIBR0213 in these solvents is approximately 25 mg/ml.

NIBR0213 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NIBR0213 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. NIBR0213 has a solubility of approximately 0.15 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

NIBR0213 is an orally bioavailable, potent, and selective antagonist of sphingosine-1-phosphate receptor-1 (S1P<sub>1</sub>) with IC<sub>50</sub> values of 2.5 and 2.0 nM for the hS1P<sub>1</sub> in a Ca<sup>2+</sup> mobilization assay and GTPγS assay, respectively.<sup>1</sup> It is inactive at S1P<sub>2</sub>, S1P<sub>3</sub>, and S1P<sub>4</sub> receptors (IC<sub>50</sub>s = >20, >10, and >10 μM, respectively in a Ca<sup>2+</sup> mobilization assay). S1P<sub>1</sub> plays a key role in the immune system, regulating lymphocyte egress from lymphoid tissues into the circulation.<sup>2</sup> In rats, NIBR0213 (30 mg/kg) reduces peripheral blood lymphocytes by 75-85% for up to 24 hours.<sup>1</sup> In a mouse model of experimental autoimmune encephalomyelitis (EAE), it significantly reduces disease severity up to 26 days, when administered at 30 mg/kg twice per day for three days, then 60 mg/kg twice per day. However, in a rat model of adjuvant-induced arthritis, chronic administration of 30 mg/kg induces pulmonary damage and chronic lung inflammation.<sup>3</sup>

### References

1. Quancard, J., Bollbuck, B., Janser, P., *et al.* A potent and selective S1P<sub>1</sub> antagonist with efficacy in experimental autoimmune encephalomyelitis. *Chem. Biol.* **19**(9), 1142-1151 (2012).
2. Huwiler, A., Kolter, T., Pfeilschifter, J., *et al.* Physiology and pathophysiology of sphingolipid metabolism and signaling. *Biochim. Biophys. Acta.* **1485**(2-3), 63-99 (2000).
3. Bigaud, M., Dincer, Z., Bollbuck, B., *et al.* Pathophysiological consequences of a break in S1P1-dependent homeostasis of vascular permeability revealed by S1P1 competitive antagonism. *PLoS One* **11**(12), e0168252 (2016).

#### 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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