

# PRODUCT INFORMATION



## ITI214

Item No. 30376

**CAS Registry No.:** 1642303-38-5  
**Formal Name:** (6aR,9aS)-2-[[4-(6-fluoro-2-pyridinyl)phenyl]methyl]-5,6a,7,8,9,9a-hexahydro-5-methyl-3-(phenylamino)-cyclopent[4,5]imidazo[1,2-a]pyrazolo[4,3-e]pyrimidin-4(2H)-one, monophosphate

**MF:** C<sub>29</sub>H<sub>26</sub>FN<sub>7</sub>O • H<sub>3</sub>PO<sub>4</sub>

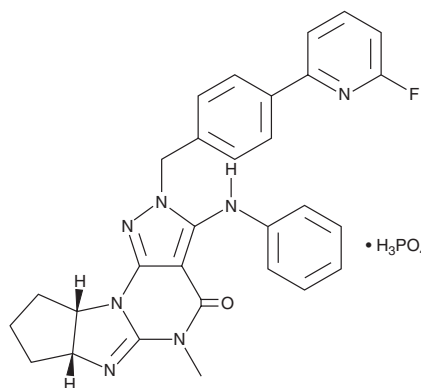
**FW:** 605.6

**Purity:** ≥98%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

ITI214 is supplied as a solid. A stock solution may be made by dissolving the ITI214 in the solvent of choice, which should be purged with an inert gas. ITI214 is soluble in DMSO.

### Description

ITI214 is an inhibitor of phosphodiesterase 1 (PDE1;  $K_i = 0.058$  nM).<sup>1</sup> It is selective for PDE1 over PDE2A, -3B, -4A, -5A, -6, -7B, -8A, -9A, -10A, and -11A ( $K_i$ s = 0.16-18  $\mu$ M). ITI214 (3 and 6 mg/kg) enhances novel object recognition in rats. It increases prefrontal cortex cAMP and cGMP levels in mice when administered at a dose of 50 mg/kg.<sup>2</sup> ITI214 (0.1, 3, and 10 mg/kg) reverses MK-801-induced decreases in spontaneous alteration in the T-maze continuous alternation task in mice.

### References

1. Li, P., Zheng, H., Zhao, J., *et al.* Discovery of potent and selective inhibitors of phosphodiesterase 1 for the treatment of cognitive impairment associated with neurodegenerative and neuropsychiatric diseases. *J. Med. Chem.* **59**(3), 1149-1164 (2016).
2. Pekcec, A., Schülert, N., Stierstorfer, B., *et al.* Targeting the dopamine D<sub>1</sub> receptor or its downstream signalling by inhibiting phosphodiesterase-1 improves cognitive performance. *Br. J. Pharmacol.* **175**(14), 3021-3033 (2018).

#### 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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