# **PRODUCT** INFORMATION



## Paricalcitol

Item No. 17716

CAS Registry No.:	131918-61-1	
Formal Name:	(1R,3R,5Z)-5-[(2E)-2-[(1R,3aS,7aR)-	
	octahydro-1-[(1R,2E,4S)-5-	
	hydroxy-1,4,5-trimethyl-2-hexen-	HO
	1-yl]-7a-methyl-4H-inden-4-1,3-	·
	cyclohexanediol	
Synonyms:	$1\alpha$ ,25-Dihydroxy-19-nor-vitamin D <sub>2</sub> ,	
	19-nor-1,25-Dihydroxyvitamin $D_2$ ,	
	Zemplar	но
MF:	$C_{27}H_{44}O_3$	·· / H, \
FW:	416.6	
Purity:	≥98%	У Т У ОН
UV/Vis.:	λ <sub>max</sub> : 243, 251, 261 nm	
Supplied as:	A crystalline solid	
Storage:	-80°C	
Stability:	≥2 years	

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

#### Laboratory Procedures

Paricalcitol is supplied as a crystalline solid. A stock solution may be made by dissolving the paricalcitol in the solvent of choice, which should be purged with an inert gas. Paricalcitol is soluble in the organic solvent ethanol at a concentration of approximately 1 mg/ml.

### Description

Paricalcitol is a synthetic 1,25-dihydroxy vitamin D<sub>2</sub> analog. As vitamin D deficiency, associated with chronic kidney disease, leads to an increase in parathyroid hormone (secondary hyperparathyroidism), paricalcitol is used in renal patients to block parathyroid hormone overproduction.<sup>1-3</sup> Vitamin D deficiency is also a risk factor in cancer, cardiovascular disease, hypertension, and diabetes, and paricalcitol may have applications in those contexts as well.<sup>4</sup>

#### References

- 1. Brown, A.J., Finch, J., Takahashi, F., et al. Calcemic activity of 19-nor-1,25(OH)<sub>2</sub>D<sub>2</sub> decreases with duration of treatment. J. Am. Soc. Nephrol. 11(11), 2088-2094 (2000).
- Donate-Correa, J., Domínguez-Pimentel, V., Muros-de-Fuentes, M., et al. Beneficial effects of selective 2. vitamin D receptor activation by paricalcitol in chronic kidney disease. Curr. Drug Targets 15(7), 703-709 (2014).
- 3. Walf, M. and Thadhani, R. Vitamin D in patients with renal failure: A summary of observational mortality studies and steps moving forward. J. Steroid Biochem. Mol. Biol. 103(3-5), 487-490 (2007).
- 4. Duplancic, D., Cesarik, M., Poljak, N.K., et al. The influence of selective vitamin D receptor activator paricalcitol on cardiovascular system and cardiorenal protection. Clin. Interv. Aging 8, 149-156 (2013).

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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