

## Rhodopsin peptide

## Chemical Properties

CAS No. :

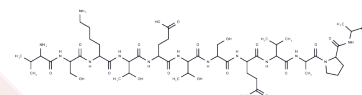
Formula: C51H88N14O20

Molecular Weight: 1217.33

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Rhodopsin peptide is a peptide with the sequence H2N-Val-Ser-Lys-Thr-Glu-Thr-Ser-Gln-Val-Ala-Pro-Ala-OH, MW= 1217.33. Rhodopsin is a biological pigment in photoreceptor cells of the retina that is responsible for the first events in the perception of light. Rhodopsins belong to the G-protein-coupled receptor family and are extremely sensitive to light. Mutation of the rhodopsin gene is a major contributor to various retinopathies such as retinitis pigmentosa.
Targets(IC50)	Others
In vitro	In general, the disease-causing protein aggregates with ubiquitin in inclusion bodies disrupt the intermediate filament network and impairs the ability of the cell to degrade non-functioning proteins, which leads to photoreceptor apoptosis. Other mutations on rhodopsin lead to X-linked congenital stationary night blindness, mainly due to constitutive activation when the mutations occur around the chromophore binding pocket of rhodopsin. Several other pathological states relating to rhodopsin have been discovered including poor post-Golgi trafficking, dysregulated activation, rod outer segment instability, and arrestin binding [2][3].

## Solubility Information

Solubility	DMSO: ≥121.7 mg/mL, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	0.8215 mL	4.1073 mL	8.2147 mL
5 mM	0.1643 mL	0.8215 mL	1.6429 mL
10 mM	0.0821 mL	0.4107 mL	0.8215 mL
50 mM	0.0164 mL	0.0821 mL	0.1643 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Malvaez, M., et al., HDAC3-selective inhibitor enhances extinction of cocaine-seeking behavior in a persistent manner. *Proc Natl Acad Sci U S A*, 2013. 110(7): p. 2647-52.

Rogge, G.A., et al., HDAC3 is a negative regulator of cocaine-context-associated memory formation. *J Neurosci*, 2013. 33(15): p. 6623-32.

Wells, C.E., et al., Inhibition of histone deacetylase 3 causes replication stress in cutaneous T cell lymphoma. *PLoS One*, 2013. 8(7): p. e68915.

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