

# PHF8 demethylates MeK21-histone H4

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## Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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## Literature references

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- Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics*, 33, 3461-3467. [↗](#)
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Reactome database release: 88

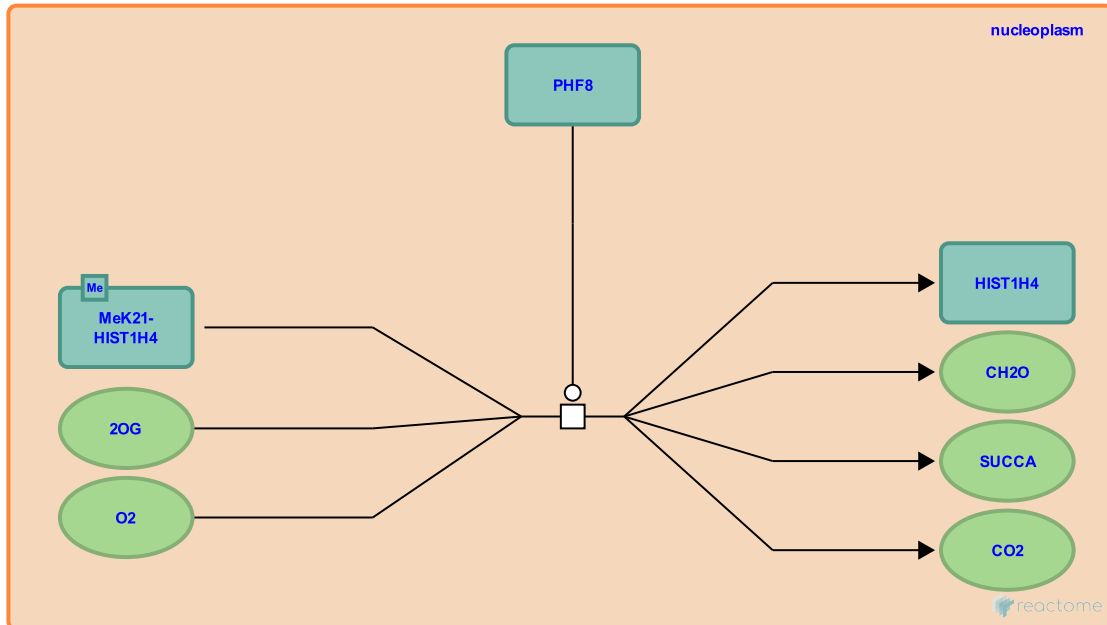
This document contains 1 reaction ([see Table of Contents](#))

## PHF8 demethylates MeK21-histone H4 [↗](#)

**Stable identifier:** R-HSA-5423117

**Type:** transition

**Compartments:** nucleoplasm



PHF8 (JHDM1E) catalyses demethylation of mono-methylated lysine-21 of histone H4 (H4K20Me1) (Qi et al. 2010, Liu et al. 2010).

### Literature references

Ongusaha, PP., Roberts, TM., Garcia, BA., Lim, H., Yaghi, NK., Brizuela, L. et al. (2010). Histone H4K20/H3K9 demethylase PHF8 regulates zebrafish brain and craniofacial development. *Nature*, 466, 503-7. [↗](#)

Liu, W., Glass, CK., Desai, A., Ohgi, KA., Aggarwal, AK., Benner, C. et al. (2010). PHF8 mediates histone H4 lysine 20 demethylation events involved in cell cycle progression. *Nature*, 466, 508-12. [↗](#)

### Editions

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