

# Recognition and binding of the HIV-1 mRNA cap by the cap-binding complex

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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

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics*, 18, 142. [↗](#)

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

Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res*, 46, D649-D655. [↗](#)

Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

Reactome database release: 88

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

**Recognition and binding of the HIV-1 mRNA cap by the cap-binding complex** [↗](#)

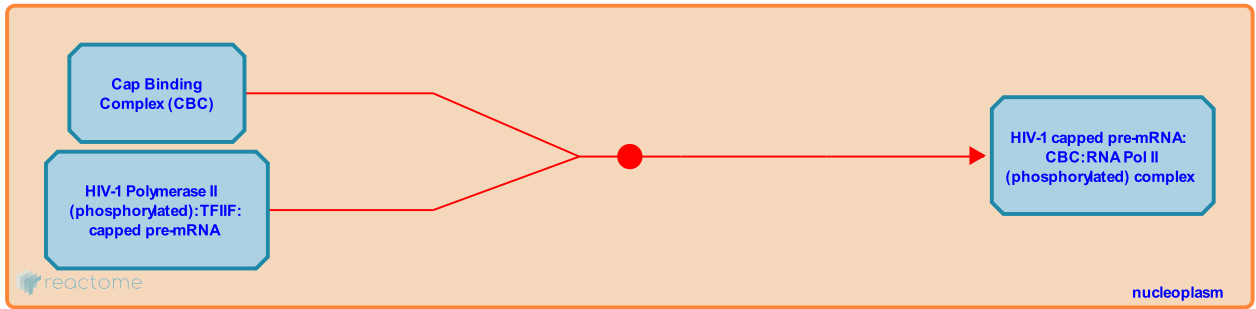
**Stable identifier:** R-HSA-167089

**Type:** binding

**Compartments:** nucleoplasm

**Diseases:** Human immunodeficiency virus infectious disease

**Inferred from:** [Recognition and binding of the mRNA cap by the cap-binding complex](#) (Homo sapiens)



The cap binding complex binds to the methylated GMP cap on the nascent mRNA transcript (Gonatopoulos-Pournatzis & Cowling 2014).

**Literature references**

Gonatopoulos-Pournatzis, T., Cowling, VH. (2014). Cap-binding complex (CBC). *Biochem. J.*, 457, 231-42. [↗](#)

**Editions**

2005-07-27	Authored	Matthews, L., Rice, AP.
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