SNAI1, SNAI2 bind the PTEN gene promoter

Carracedo, A., Orlic-Milacic, M., Salmena, L.
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


Reactome database release: 78

This document contains 1 reaction *(see Table of Contents)*
SNAI1, SNAI2 bind the PTEN gene promoter

**Stable identifier:** R-HSA-8944026

**Type:** binding

**Compartments:** nucleoplasm

The transcriptional repressor SNAI1 (Snail1) binds the promoter of the PTEN gene. Binding of SNAI1 to the PTEN promoter increases in response to ionizing radiation and interferes with binding of TP53 to the PTEN promoter. Phosphorylation of SNAI1 at serine residue S246 may be required for SNAI1-mediated repression of PTEN transcription (Escriva et al. 2008). Another Slug/Snail family member SNAI2 (SLUG) can also bind to the PTEN gene promoter to repress PTEN transcription (Uygur et al. 2015).

**Literature references**


**Editions**

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