Keratin tetramers bind to form unit length filaments

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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


Reactome database release: 78

This document contains 1 reaction (see Table of Contents)
Keratin tetramers bind to form unit length filaments

Stable identifier: R-HSA-6806613

Type: binding

Compartments: cytosol

Mammalian keratins form soluble short full-width filaments called unit length full-width particles (Parry et al. 2007), unit length filaments (ULFs) (Herrmann et al. 2002) or intermediate filament-like particles (Steinert 1991). These are formed by the lateral association of tetramers. ULFs are ~ 70 nm long, with a diameter of ~20 nm. The diameter shrinks during formation of filaments (Parry et al. 2001). X-ray diffraction suggests that ULFs are tube-like structures formed from eight tetramers in non-cornified cells (Parry et al. 2007). In cornified hair cells, the tetramers are thought to be arranged in a seven-member ring, with an eighth in the centre (Parry et al. 2007).

Literature references


Editions

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