

Mt4 binds cadmium

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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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Reactome database release: 70

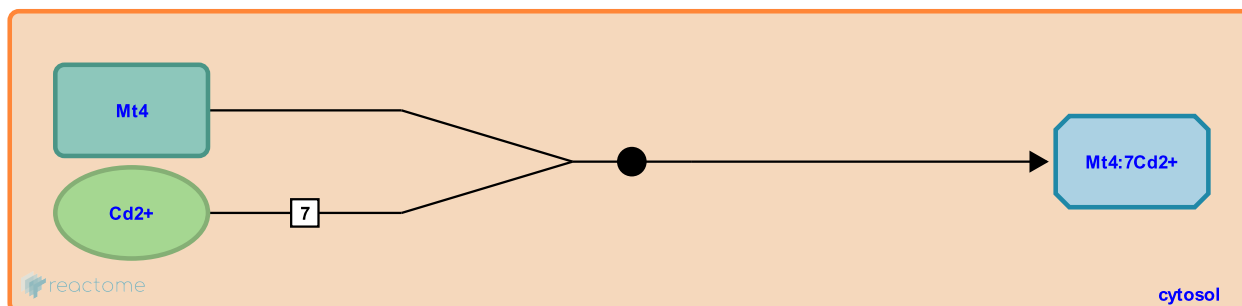
This document contains 1 reaction ([see Table of Contents](#))

Mt4 binds cadmium [↗](#)

Stable identifier: R-MMU-5662651

Type: binding

Compartment: cytosol



The metallothionein Mt4 binds 7 atoms of cadmium(II). Mt4 binds cadmium less effectively than zinc(II) or copper(I) (Tio et al. 2004, Villarreal et al. 2005).

Literature references

Villarreal, L., Tío, L., Atrian, S., Capdevila, M. (2005). Influence of chloride ligands on the structure of Zn- and Cd-metallothionein species. *Arch. Biochem. Biophys.*, 435, 331-5. [↗](#)

Tío, L., Villarreal, L., Atrian, S., Capdevila, M. (2004). Functional differentiation in the mammalian metallothionein gene family: metal binding features of mouse MT4 and comparison with its paralog MT1. *J. Biol. Chem.*, 279, 24403-13. [↗](#)

Editions

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