

GSSeSG is reduced to GSSeH and GSH by GSR

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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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- 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](#))

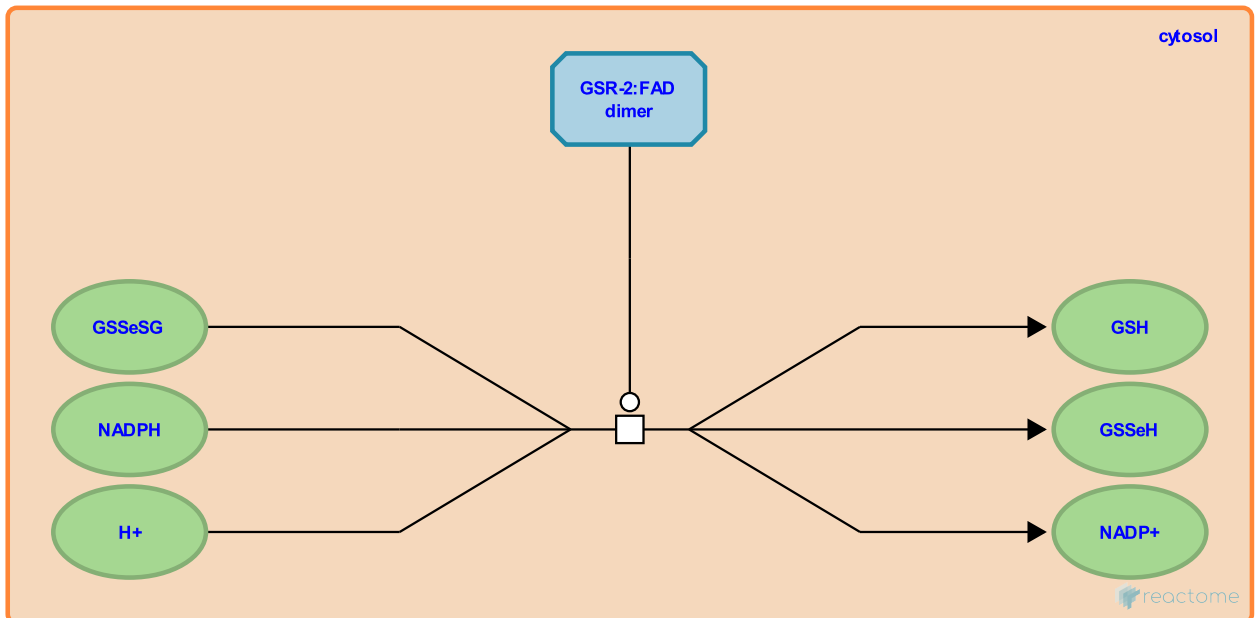
GSSeSG is reduced to GSSeH and GSH by GSR [↗](#)

Stable identifier: R-HSA-2408542

Type: transition

Compartments: cytosol

Inferred from: [GSSeSG is reduced to GSSeH and GSH by Gsr \(Rattus norvegicus\)](#)



Glutathione reductase (GSR) homodimer is involved in the reduction of selenodiglutathione (GSSeSG) into glutathioselenol (GSSeH) and reduced glutathione (GSH). This reaction is inferred from the event in rat (Bjornstedt et al. 1992).

Literature references

Björnstedt, M., Holmgren, A., Kumar, S. (1992). Selenodiglutathione is a highly efficient oxidant of reduced thioredoxin and a substrate for mammalian thioredoxin reductase. *J. Biol. Chem.*, 267, 8030-4. [↗](#)

Editions

2014-05-06	Authored	Williams, MG.
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