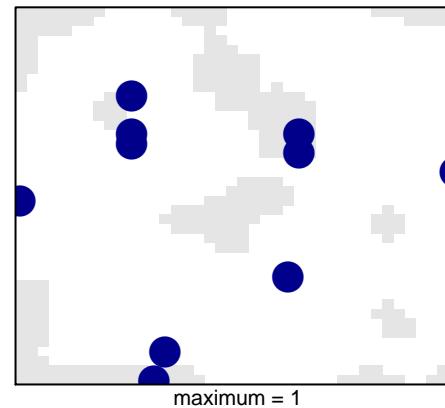
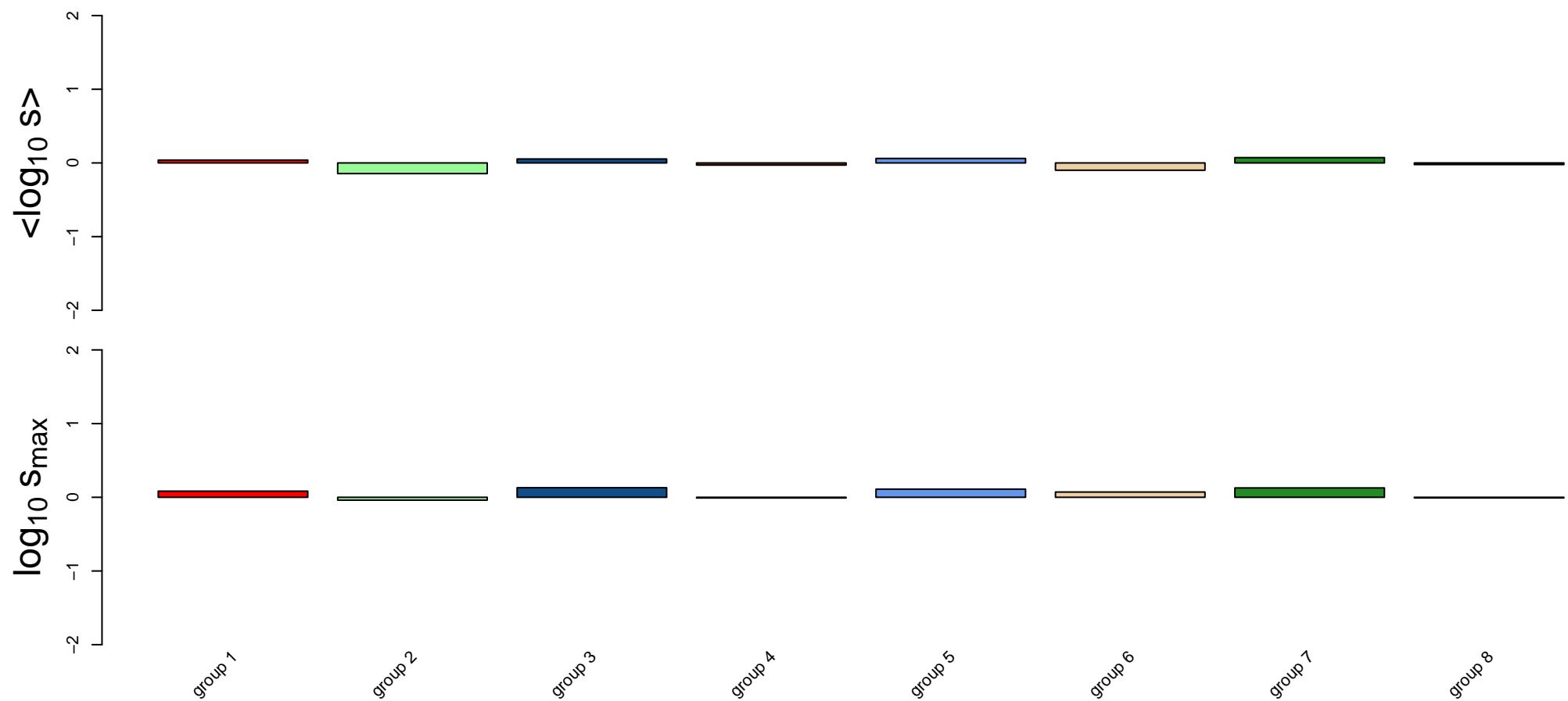
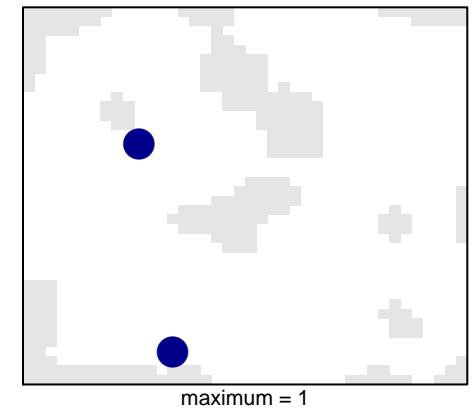


# Sulfur relay system

all genes

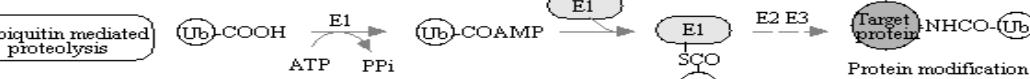


sink node genes

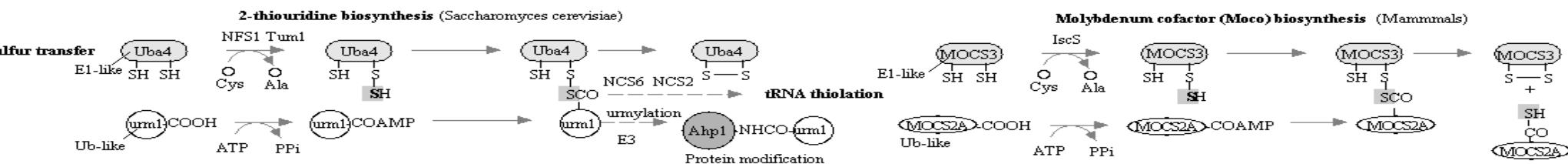


Sulfur\_relay\_system  
genes with data

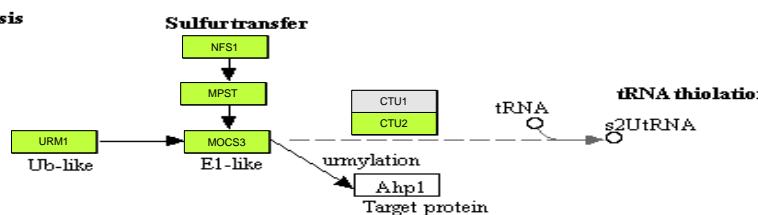
#### Ubiquitin pathway



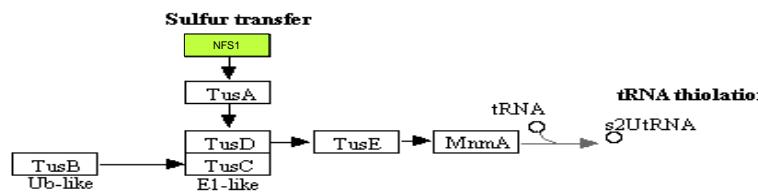
#### Sulfur-relay pathway



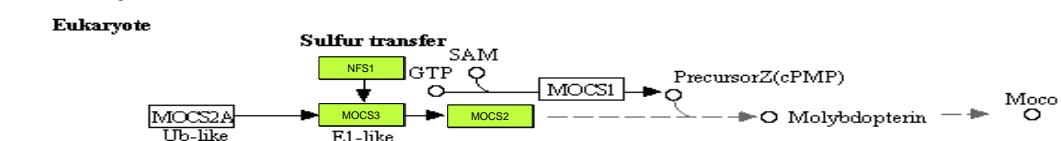
#### 2-thiouridine biosynthesis



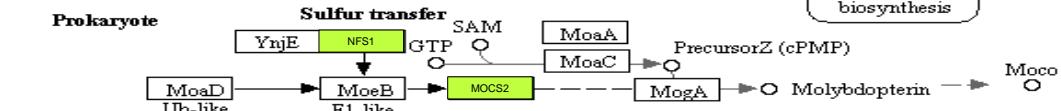
#### Prokaryote



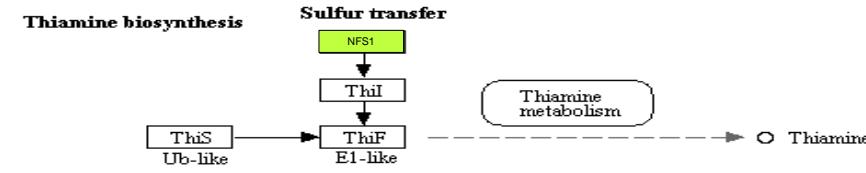
#### Moco biosynthesis



#### Prokaryote



#### Thiamine biosynthesis



#### Cysteine biosynthesis



Folate biosynthesis

Moco

O

Molybdopterin

O

Moco

Folate biosynthesis

O

Molybdopterin

O

Moco

Cysteine and methionin metabolism

O

Thiamine

O

Cysteine and methionin metabolism

O

Thiamine

O

Cysteine and methionin metabolism

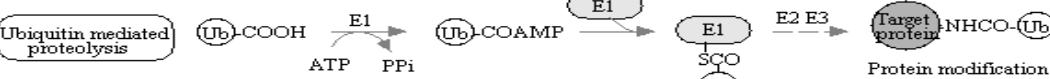
O

Cysteine

O

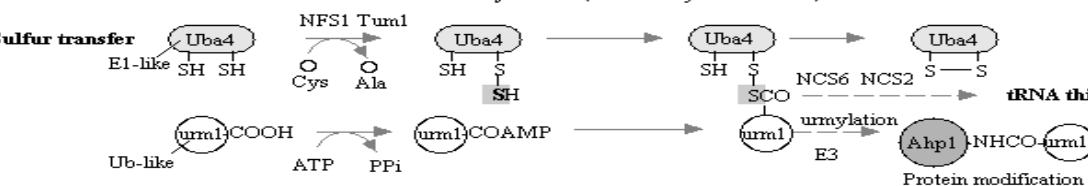
Sulfur\_relay\_system  
sink nodes

**Ubiquitin pathway**

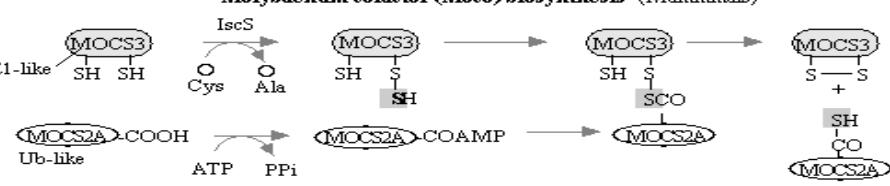


**Sulfur-relay pathway**

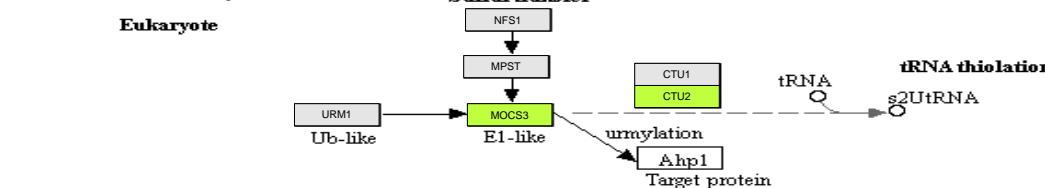
**2-thiouridine biosynthesis (Saccharomyces cerevisiae)**



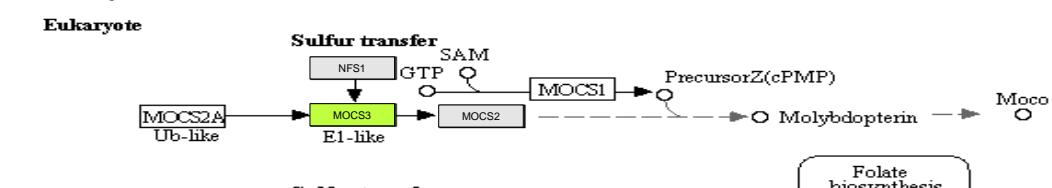
**Molybdenum cofactor (Moco) biosynthesis (Mammals)**



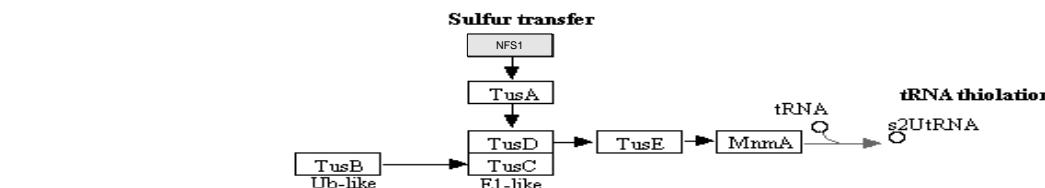
**2-thiouridine biosynthesis**



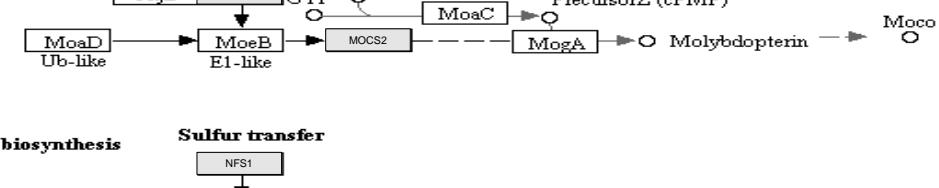
**Moco biosynthesis**



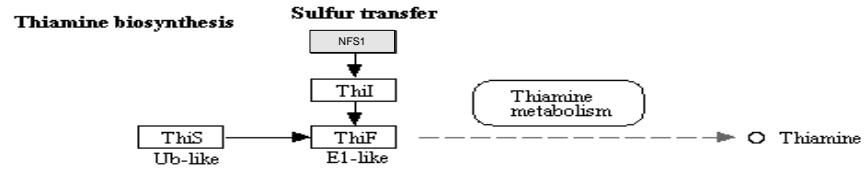
**Prokaryote**



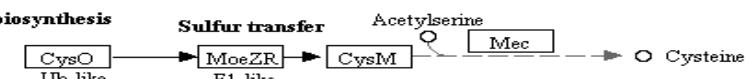
**Prokaryote**



**Thiamine biosynthesis**

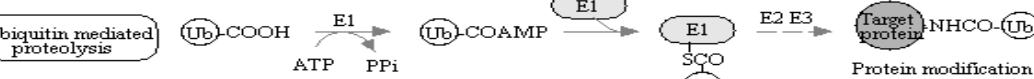


**Cysteine biosynthesis**

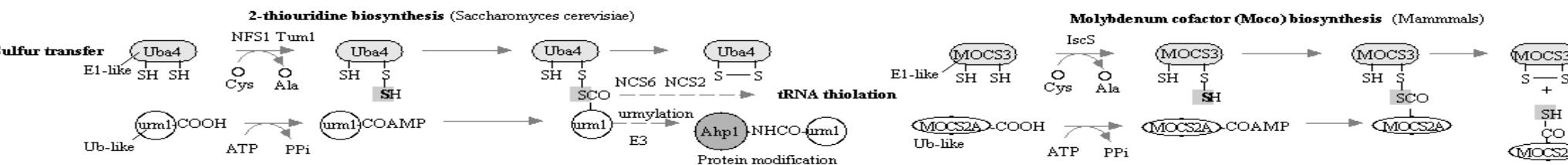


Sulfur\_relay\_system  
influencer genes

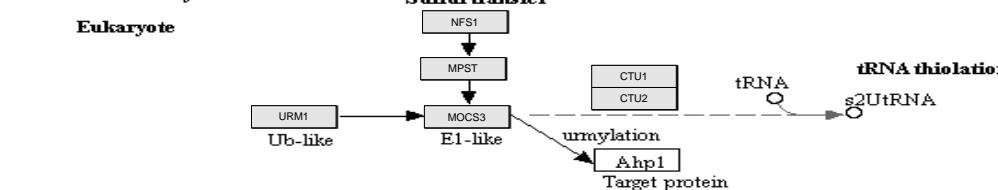
**Ubiquitin pathway**



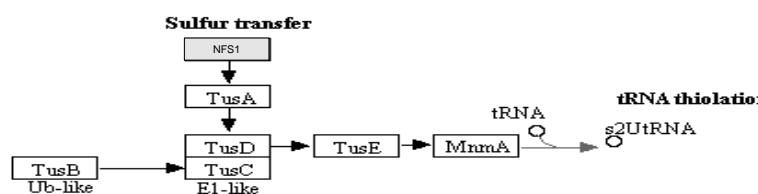
**Sulfur-relay pathway**



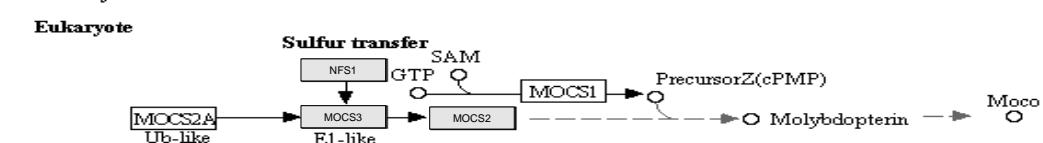
**2-thiouridine biosynthesis**



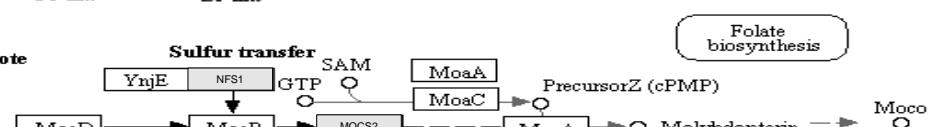
**Sulfurtransfer**



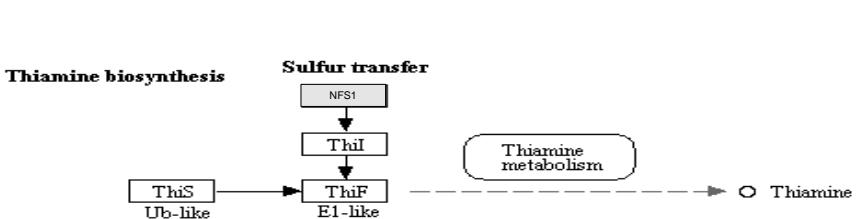
**Moco biosynthesis**



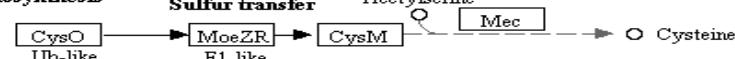
**Folate biosynthesis**



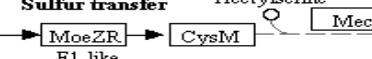
**Thiamine biosynthesis**



**Cysteine biosynthesis**



**Sulfur transfer**

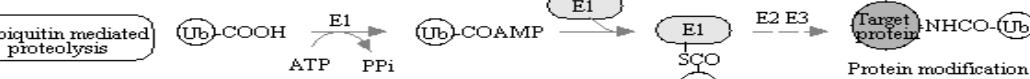


**Acetylserine**

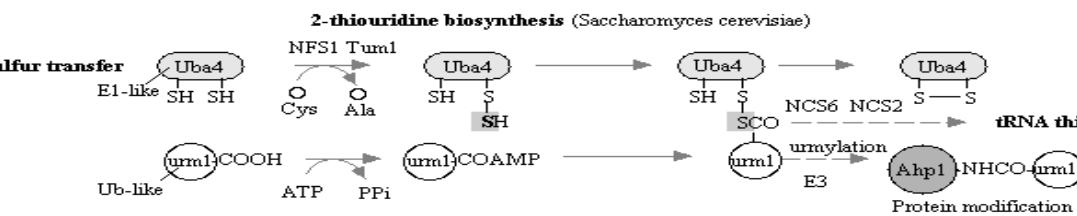


Sulfur\_relay\_system  
group 1

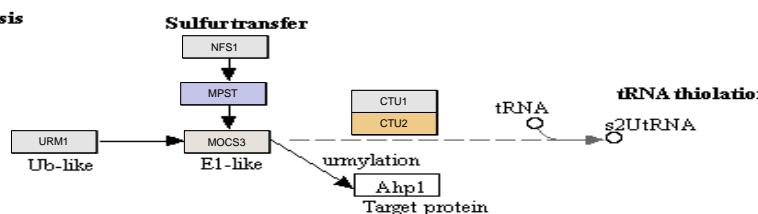
**Ubiquitin pathway**



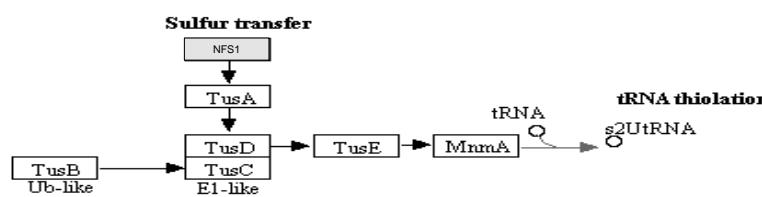
**Sulfur-relay pathway**



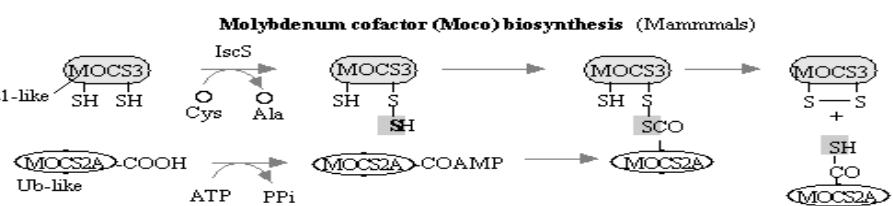
**2-thiouridine biosynthesis**



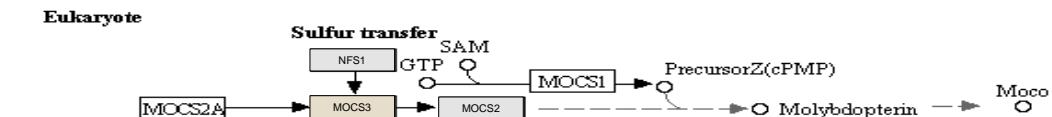
**Prokaryote**



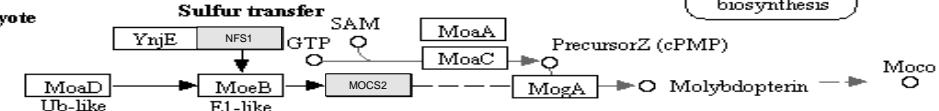
**Molybdenum cofactor (Moco) biosynthesis (Mammals)**



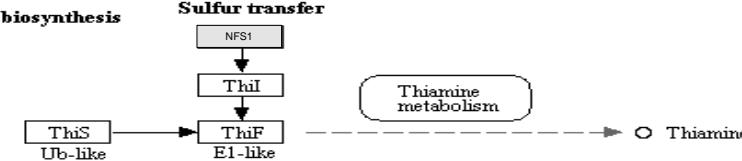
**Moco biosynthesis**



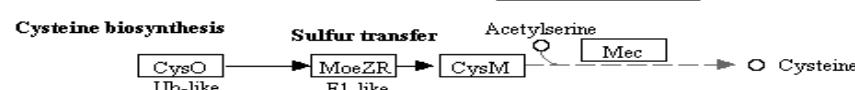
**Prokaryote**



**Thiamine biosynthesis**

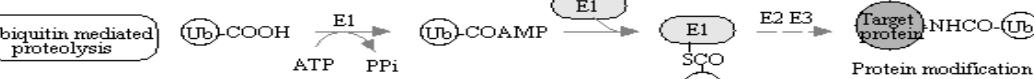


Folate biosynthesis

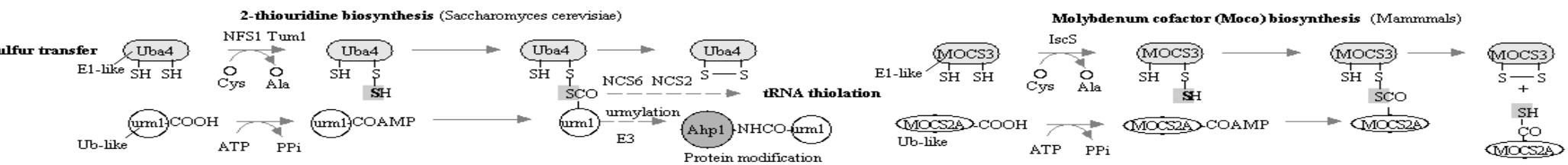


Sulfur\_relay\_system  
group 2

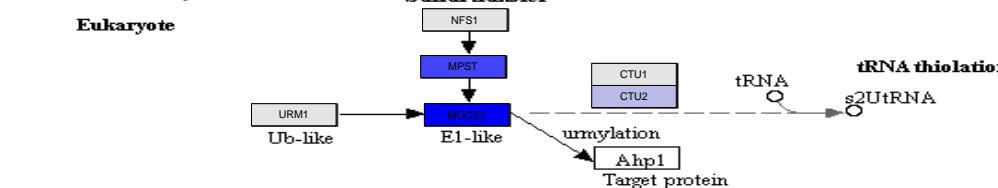
**Ubiquitin pathway**



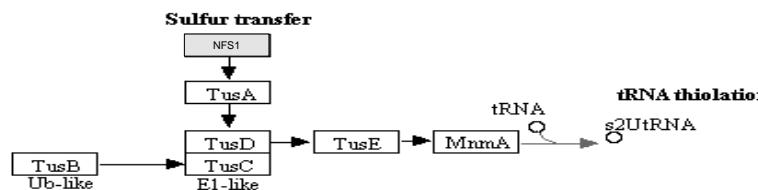
**Sulfur-relay pathway**



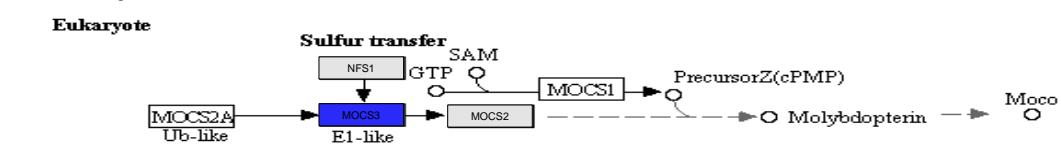
**2-thiouridine biosynthesis**



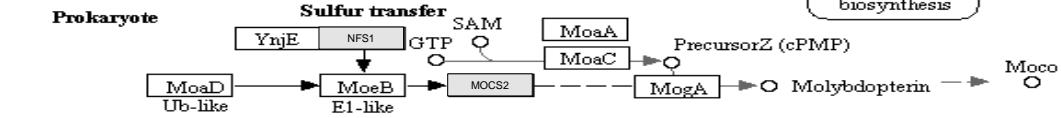
**Sulfurtransfer**



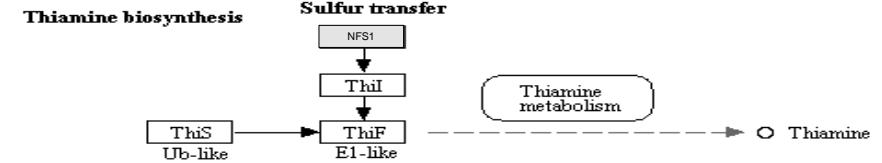
**Moco biosynthesis**



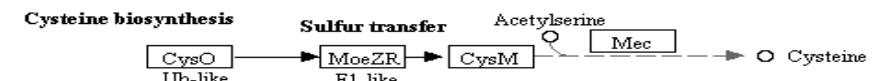
**Prokaryote:**



**Thiamine biosynthesis**

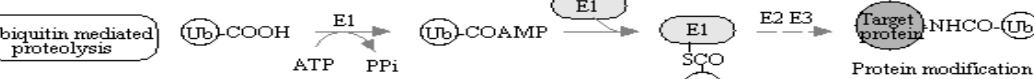


**Cysteine biosynthesis**



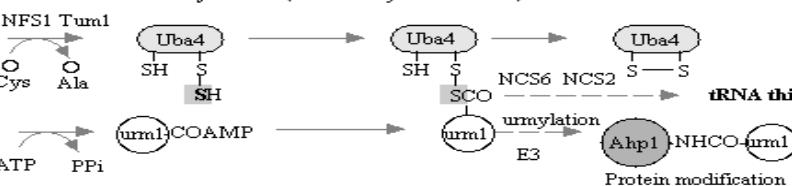
Sulfur\_relay\_system  
group 3

**Ubiquitin pathway**

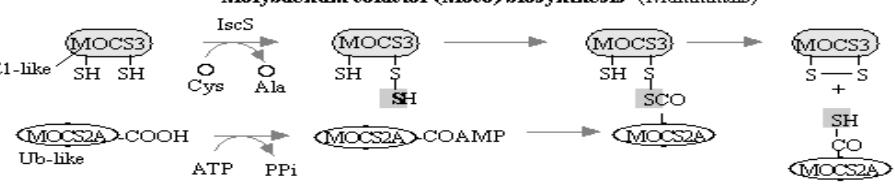


**Sulfur-relay pathway**

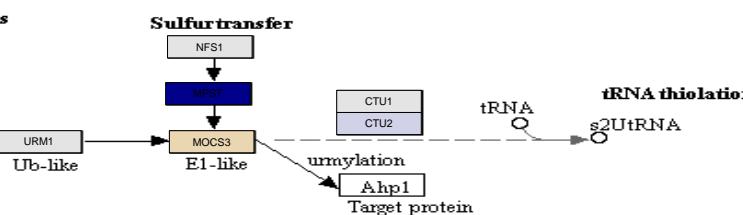
**2-thiouridine biosynthesis (Saccharomyces cerevisiae)**



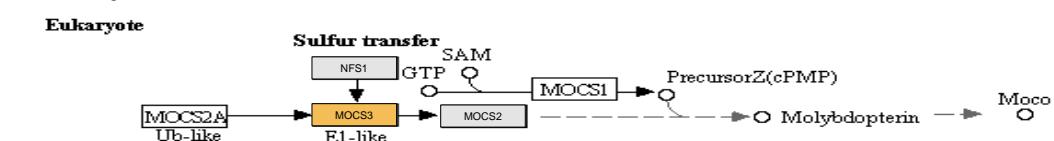
**Molybdenum cofactor (Moco) biosynthesis (Mammals)**



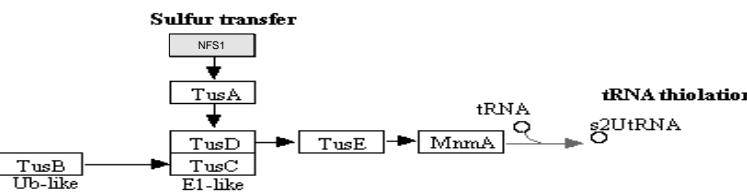
**2-thiouridine biosynthesis**



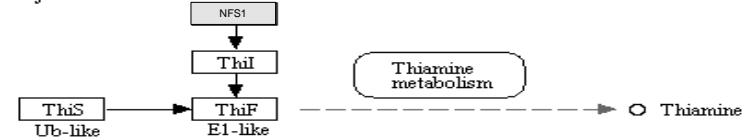
**Moco biosynthesis**



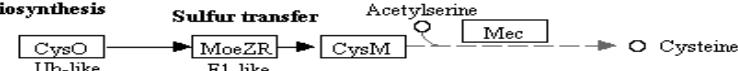
**Prokaryote**



**Thiamine biosynthesis**



**Cysteine biosynthesis**



Folate biosynthesis

Moco

PrecursorZ (cPMP)

Molybdopterin

Moco

PrecursorZ (cPMP)

Molybdopterin

Moco

Thiamine metabolism

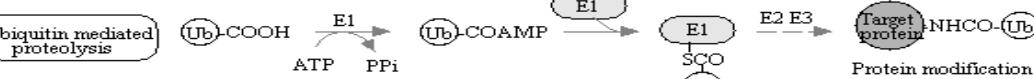
Thiamine

Cysteine and methionin metabolism

Cysteine

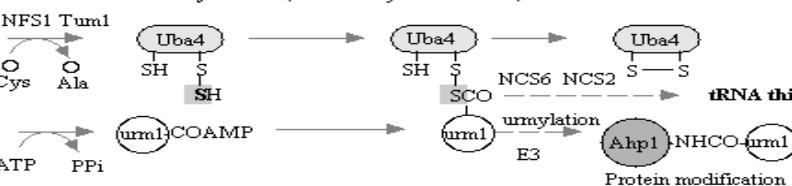
Sulfur\_relay\_system  
group 4

**Ubiquitin pathway**

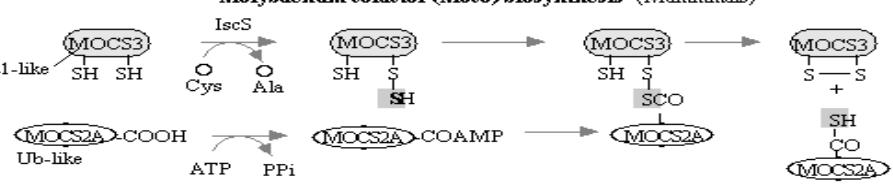


**Sulfur-relay pathway**

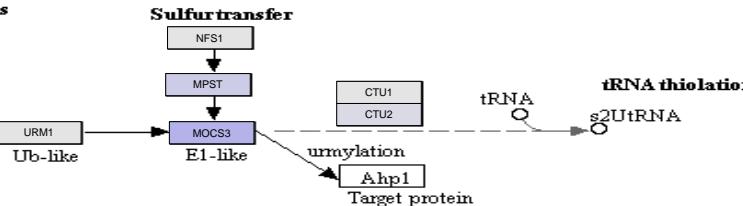
**2-thiouridine biosynthesis (Saccharomyces cerevisiae)**



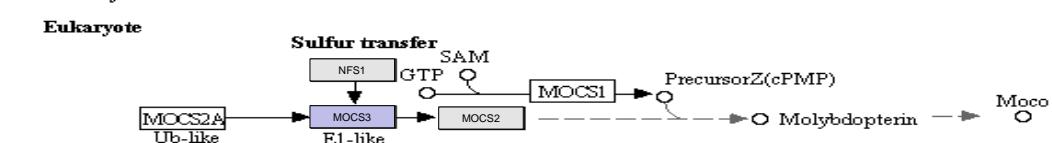
**Molybdenum cofactor (Moco) biosynthesis (Mammals)**



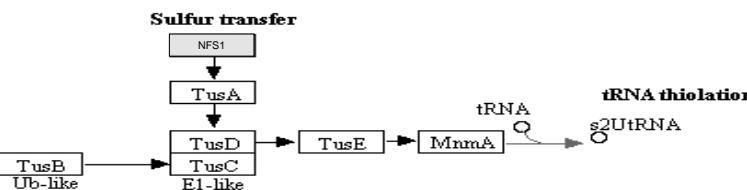
**2-thiouridine biosynthesis**



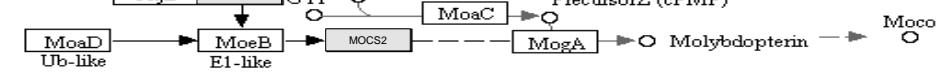
**Moco biosynthesis**



**Prokaryote**



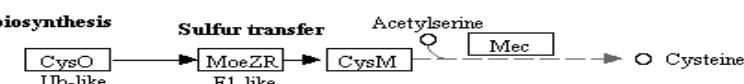
**Prokaryote**



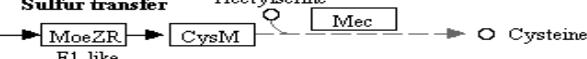
**Thiamine biosynthesis**



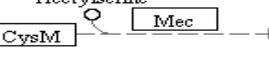
**Cysteine biosynthesis**



**Sulfur transfer**

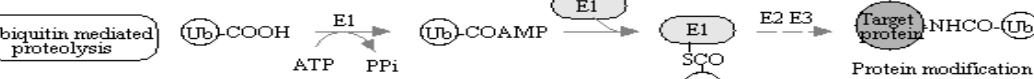


**Thiamine metabolism**

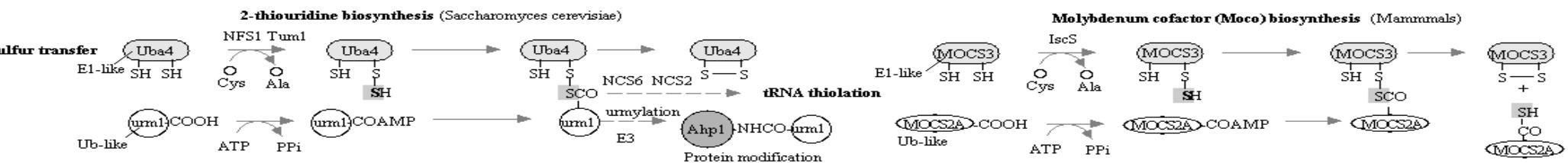


Sulfur\_relay\_system  
group 5

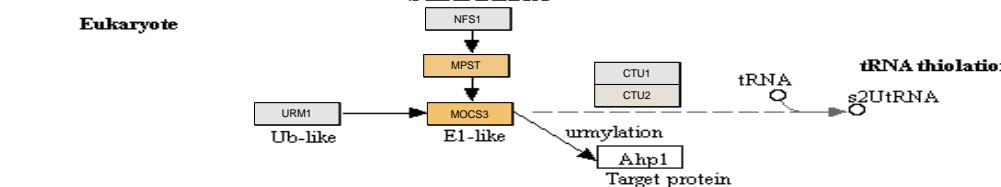
**Ubiquitin pathway**



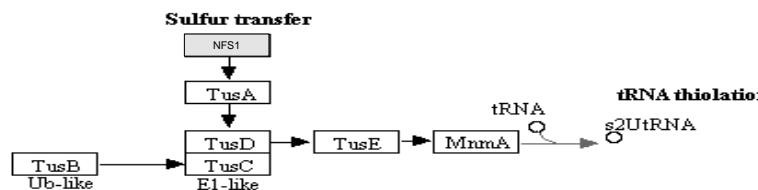
**Sulfur-relay pathway**



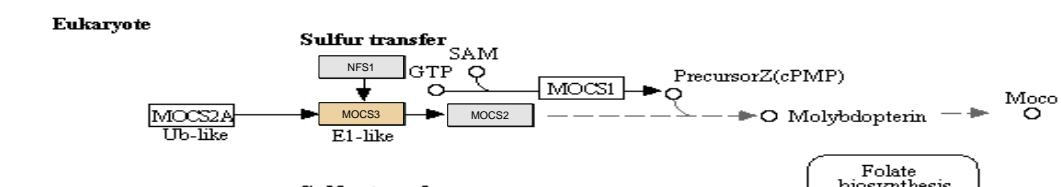
**2-thiouridine biosynthesis**



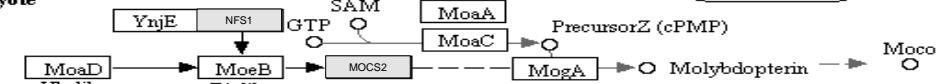
**Sulfurtransfer**



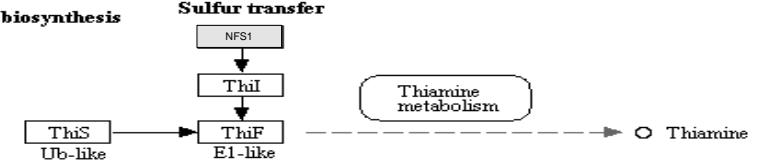
**Moco biosynthesis**



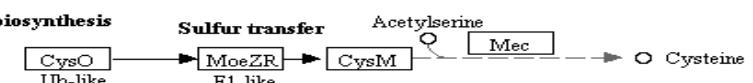
**Sulfur transfer**



**Thiamine biosynthesis**



**Cysteine biosynthesis**



Folate biosynthesis

Moco

PrecursorZ (cPMP)

Molybdopterin

Moco

PrecursorZ (cPMP)

Molybdopterin

Moco

Thiamine metabolism

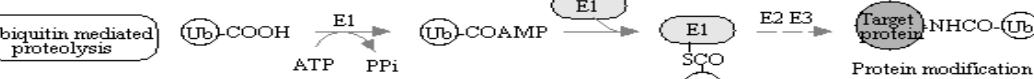
Thiamine

Cysteine and methionin metabolism

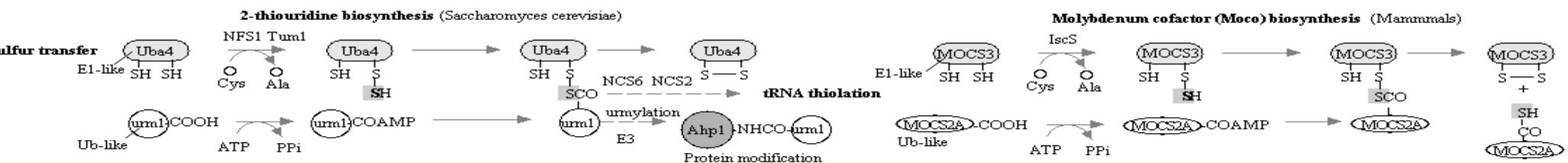
Cysteine

Sulfur\_relay\_system  
group 6

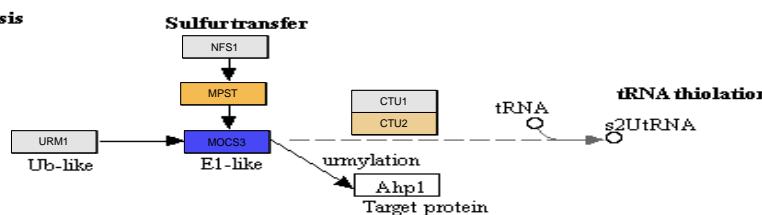
**Ubiquitin pathway**



**Sulfur-relay pathway**

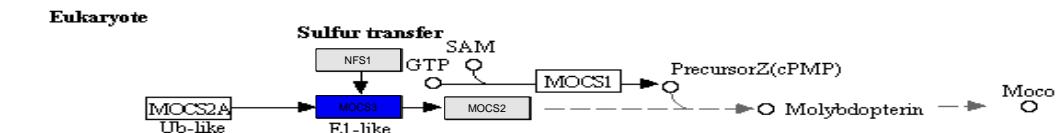


**2-thiouridine biosynthesis**

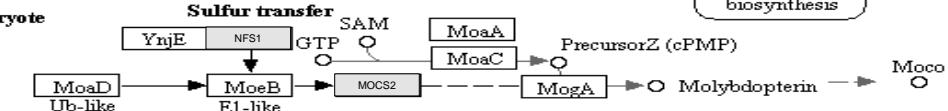


**Sulfurtransfer**

**Moco biosynthesis**

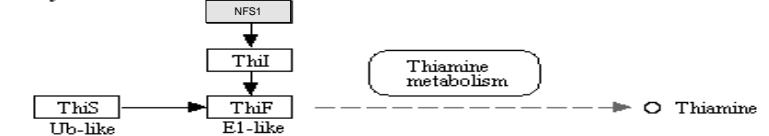


**Prokaryote**

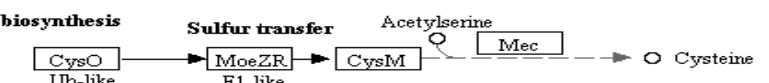


**Sulfur transfer**

**Thiamine biosynthesis**



**Cysteine biosynthesis**



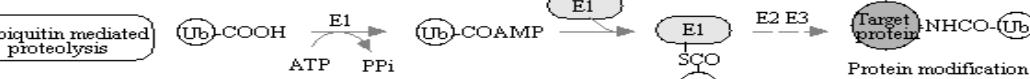
**Sulfur transfer**

**Acetylserine**

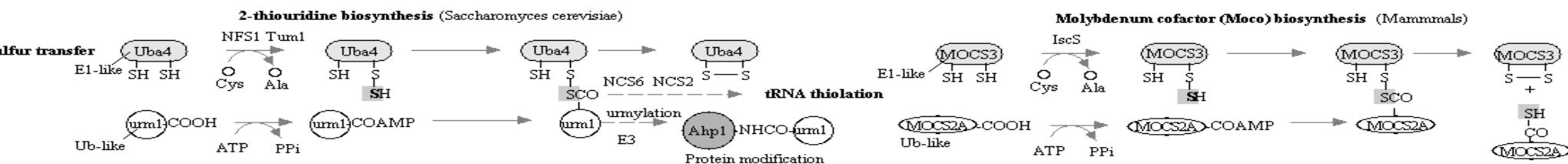
**Cysteine and methionin metabolism**

Sulfur\_relay\_system  
group 7

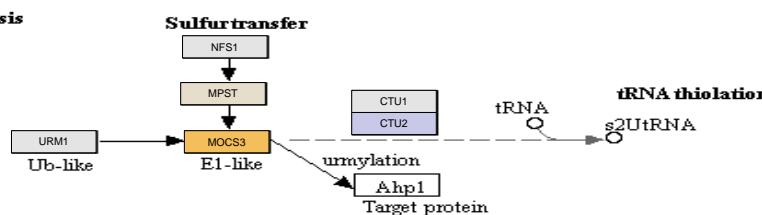
**Ubiquitin pathway**



**Sulfur-relay pathway**



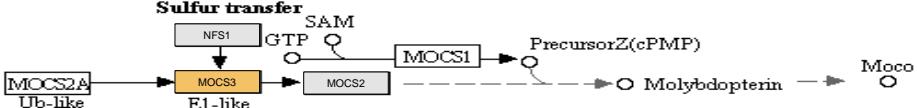
**2-thiouridine biosynthesis**



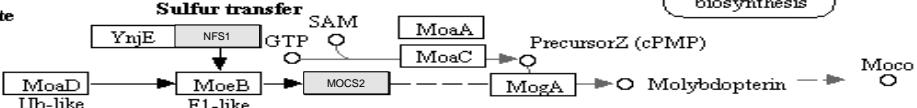
**Sulfurtransfer**

**Moco biosynthesis**

**Eukaryote**

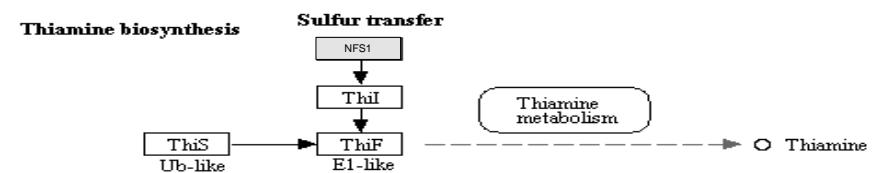


**Prokaryote**

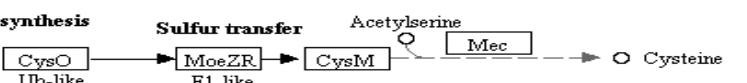


**Sulfur transfer**

**Thiamine biosynthesis**



**Cysteine biosynthesis**



Folate biosynthesis

Moco

Thiamine metabolism

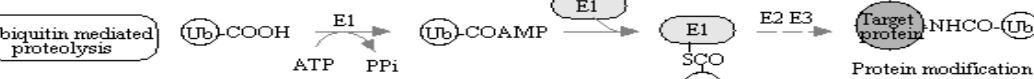
Thiamine

Cysteine and methionin metabolism

Cysteine

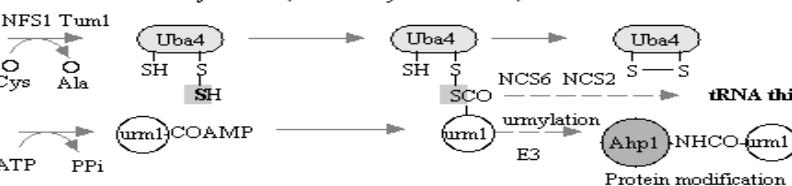
Sulfur\_relay\_system  
group 8

**Ubiquitin pathway**

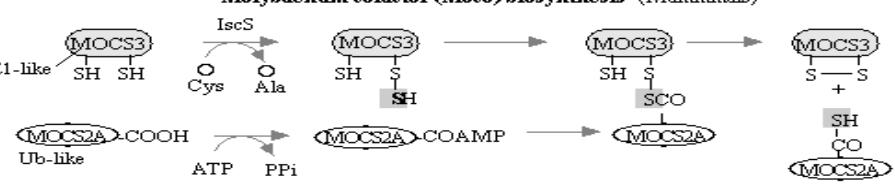


**Sulfur-relay pathway**

**2-thiouridine biosynthesis (Saccharomyces cerevisiae)**

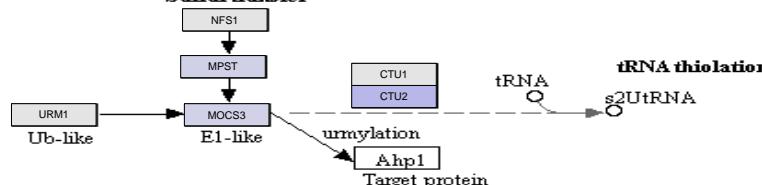


**Molybdenum cofactor (Moco) biosynthesis (Mammals)**

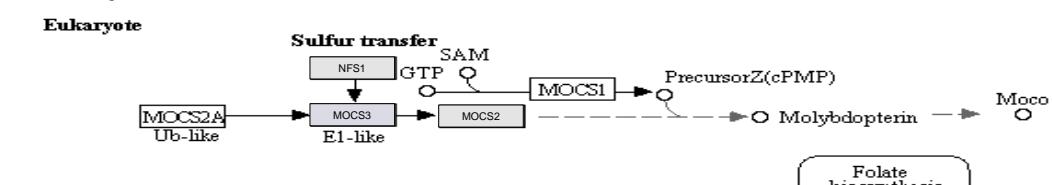


**2-thiouridine biosynthesis**

**Sulfurtransfer**

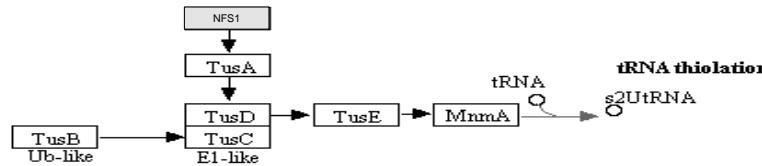


**Moco biosynthesis**



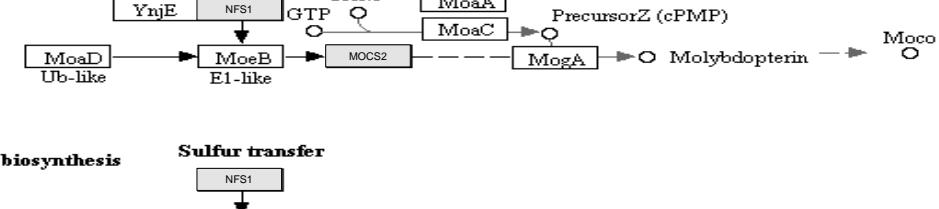
**Prokaryote**

**Sulfurtransfer**



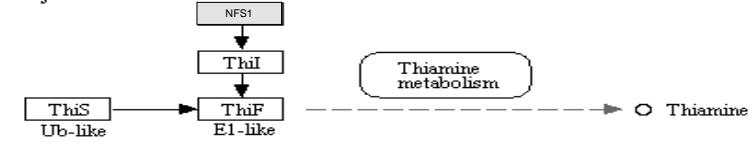
**Prokaryote**

**Sulfurtransfer**



**Thiamine biosynthesis**

**Sulfurtransfer**



**Cysteine biosynthesis**

**Sulfurtransfer**



**Cysteine and methionin metabolism**

**Sulfurtransfer**

**Acetylserine**

**Cysteine**