

A. Sulfate Assimilation

The diagram illustrates the sulfate assimilation pathway in *E. coli*. It begins with Sulfate, which is converted to APS (Adenosine Phosphosulfate) by the enzyme PAPSS, with sat and cysND as cofactors. APS is then converted to PAPS (Phosphoadenosine Phosphosulfate) by the enzyme cysC. PAPS is converted to Sulfite by the enzyme cysH. Sulfite is then converted to Sulfide by the enzymes sir and cysIJ. A feedback loop is shown where APS is converted to Sulfite by the enzyme apr.

Sulfate

PAPSS
sat
cysND

APS

cysC

PAPS

cysH

Sulfite

sir
cysIJ

Sulfide

apr

