



Recombinant Rat Glutathione S-transferase alpha-1 (Gsta1)

Product Code	CSB-YP009970RA
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P00502
Product Type	Recombinant Protein
Immunogen Species	Rattus norvegicus (Rat)
Purity	>85% (SDS-PAGE)
Sequence	MSGKPVLYHYF NARGRMCEIR WLLAAGVEF DEKFIQSPED LEKLLKDGNL MFDQVPMVEI DGMKLAQTRA ILNYIATKYD LYGKDMKERA LIDMYTEGIL DLTEMIMQLV ICPPDQKEAK TALAKDRTKN RYLPAFEKVL KSHGQDYLVG NRLTRVDIHL LELLYVEEF DASLLTSFPL LKAFKSRIS LPNVKKFLQP GSQRKLPVDA KQIEEARKIF KF
Source	Yeast
Target Names	Gsta1
Protein Names	Recommended name: Glutathione S-transferase alpha-1 EC= 2.5.1.18 Alternative name(s): GST 1-1 GST 1a-1a GST A1-1 GST B Glutathione S-transferase Ya-1 Short name= GST Ya1 Ligandin
Expression Region	1-222
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full length protein
Target Details	Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. These enzymes function in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding these enzymes are known to be highly polymorphic. These genetic variations can change an individual's susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of some drugs. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. This gene encodes a glutathione S-transferase belonging to the alpha class. The alpha class genes, located in a cluster mapped to chromosome 6, are the most abundantly expressed glutathione S-transferases in liver. In addition to metabolizing bilirubin and certain anti-cancer drugs in the liver, the alpha class of these enzymes exhibit glutathione peroxidase activity thereby protecting the cells from reactive oxygen species and the products of peroxidation.



Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.