

Polyclonal Antibody to Glutathione - Serum

Catalog No.: AP32365SU-N

Quantity: 0.1 ml

Background: Glutathione is a small peptide composed of three amino acids: cysteine, glutamic acid, and glycine and is present in tissues in concentrations as high as one millimolar. It contains an unusual peptide linkage between the amine group of cysteine and the carboxyl group of the glutamate side chain. Glutathione is involved in detoxification, it binds to toxins, such as heavy metals, solvents, and pesticides, and transforms them into a form that can be excreted in urine or bile. It is also an important antioxidant, helping to maintain the -SH groups of proteins in their reduced form.

Chronic functional glutathione deficiency is associated with glucose 6-phosphate dehydrogenase deficiency, immune disorders, an increased incidence of malignancies, and in the case of HIV disease, probably accelerated pathogenesis of the disease. Acute manifestations of functional glutathione deficiency can be seen in those who have taken an overdose of acetaminophen (paracetamol). This results in depletion of glutathione in the hepatocytes, leading to liver failure and death.

Host: Rat

Immunogen: Glutathione-Glutaraldehyde-BSA

Format: **State:** Liquid Serum
Preservatives: 0.09% Sodium Azide

Applications: **Immunohistochemistry:** 1/1,000-1/2,500 by PAP.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognises Glutathione, a tripeptide antioxidant found within cells mainly in its reduced form.

The cross-reactivities were determined using either **ELISA** or **RIA** techniques, at concentration/unconjugated or conjugated amino acid concentration at half displacement.

Compound : Cross-reactivity Ratio

Glutathione-G-BSA: 1

Cysteine-G-BSA: 1/ > 10,000.

Glutamate-G-BSA: 1/ > 10,000.

Glycine-G-BSA: 1/ > 10,000.

G = Glutaraldehyde, BSA = Bovine Serum Albumin

Storage:

Store (in aliquots) at -20°C.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

Note: During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For antibodies with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.

General Readings:

1. Amara, A. et al, Brain Research. (1994) 659:237-242.