

Product Specification Sheet

**Anti-glutathione antibodies and controls**

<b>Cat #</b> GSH12-M	Mouse monoclonal anti-glutathione IgG	<b>SIZE:</b> 100 ug
<b>Cat #</b> GSH15-N-100	Glutathione-Ovalbumin protein conjugate for ELISA	<b>SIZE:</b> 100 ug

Glutathione is a tripeptide made up of the amino acids  $\gamma$ -glutamic acid, cysteine, and glycine. The primary biological function of glutathione is to act as a non-enzymatic reducing agent to help keep cysteine thiol side chains in a reduced state on the surface of proteins. Glutathione is also used to prevent oxidative stress in most cells and helps to trap free radicals that can damage DNA and RNA. There is a direct correlation with the speed of aging and the reduction of glutathione concentrations in intracellular fluids. As individuals grow older, glutathione levels drop, and the ability to detoxify free radicals decreases.

**Source of Antigen and Antibodies**

<b>Antigen</b>	Glutathione-glutaraldehyde
<b>Ab Host/type</b>	Mouse monoclonal IgG2a, supplied in PBS+0.05% azide
<b>2-Ab</b>	<b>Goat Anti-mouse IgG-HRP conjugate</b> Cat # 40320 (AP, biotin, FITC conjugates also available)
<b>-ve control IgG</b>	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Cat # GSH15-N-100** ovalbumin protein conojugate was prepared by conjugating glutathione to purified chicken ovalbumin protein using glutaraldehyde method. The protein is supplied at 1 mg/ml in PBS, pH 7.4 in liquid or in powder form. This can be used to coat the ELISA plates to check antibody titer, or run on SDS-PAGE for Western (may see multiple bands due to modification of BSA ) or used for antibody blocking (use 10 ul or 10 ug/1 ug of antibody). Store at -20oC in suitable size aliquots.

**Form & Storage of Antibodies/Peptide Control**

**Affinity pure IgG**

100 ug/100ul solution lyophilized powder  
Supplied in **Buffer:** PBS+0.1% goat serum  
**Reconstitute powder** in PBS at 1mg/ml

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.  
**Shipping:** 4oC for solutions and room temp for powder.

**Recommended Usage**

**Western Blotting:** An initial testing of antibodies is recommended at 1:500-1:2,000 using glutathione-ovalbumin conjugate (**Cat # GSH15-N-100**) as a control. Users must optimize antibody dilution depending upon the nature of samples and other technical conditions.

**ELISA** (1:1K-5K; using 50-100 ng control proteins/well).

**Histochemistry & Immunofluorescence:** An initial testing of 2-10 ug/ml is recommended. is optimized for use with immunogold or fluorescence detection.

**Specificity & Cross-reactivity**

This antibody reacts with protein-glutathione adducts on Western blot under non-reducing conditions. Antibodies react with glutathione-modified proteins from all species. No significant reactivity is observed with unmodified ovalbumin.

**General References:** Zechmann, B, et al. Protoplasma, 227:197-209 (2006); Zechmann, B. Plant Biol., 7:49-57 (2005); Muller, M. Protoplasma, 223:213-219 (2004); Hudson, V.M. 2001. Free Radic. Biol. Med. 30, 1440. Locigno, R. and Castronovo, V. 2001. Int. J. Oncol. 19, 221.; Ruocco, L., 2001. Minerva Med. 92, 23.; Sen, C.K. 1997. Nutr. Biochem. 8, 660; Amara, A., et al. 1994. Brain Res. 659, 237.

\*This product is for In vitro research use only.

GSH12-M

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