

# Anti-human/mouse/rat Glyoxalase II Antibody

## ORDERING INFORMATION

**Catalog Number:** AF5944

**Lot Number:** CBQX01

**Size:** 100 µg

**Formulation:** 0.2 µm filtered solution in PBS with 5% trehalose

**Storage:** -20° C

**Reconstitution:** sterile PBS

**Specificity:** human, mouse and rat Glyoxalase II

**Immunogen:** *E. coli*-derived rhGlyoxalase II (aa 49 - 254)

**Ig Type:** goat IgG

**Applications:** Western blot  
Direct ELISA

## Background

Glyoxalase II (GLO2; also hydroxyacylglutathione hydrolase 2 and Glx II) is a monomeric, cytosolic 29 kDa member of the Glyoxylase II family, metallo-β-lactamase superfamily of enzymes. It is expressed in liver and kidney, and converts GLO1-generated lactoylglutathione into lactate and GSH. It is upregulated by p63 and p73, and thus serves as a p53-associated survival factor. Human GLO2 is 260 amino acids (aa) in length. It binds two atoms of Zn and contains one substrate binding region (aa 143 - 145 plus 249 - 252). The 29 kDa form represents 80 - 90% of cellular GLO2. There is also a 32 - 33 kDa, 308 aa mitochondrial isoform that arises via the use of an alternative start site. Its function is unclear, given that mitochondria do not contain GLO1. There is an additional potential isoform that shows an insertion of nine aa after Thr167. Human GLO2 shares approximately 90% aa identity with mouse GLO2.

## Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant human Glyoxalase II (rhGlyoxalase II; aa 49 - 254; Accession # Q16775). Glyoxalase II specific IgG was purified by human Glyoxalase II affinity chromatography.

## Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

## Reconstitution

Reconstitute with sterile PBS. If 0.5 mL of PBS is used, the antibody concentration will be 0.2 mg/mL.

## Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

## Specificity

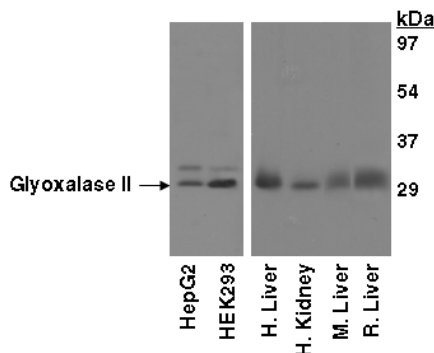
This antibody has been selected for its ability to recognize Glyoxalase II in direct ELISAs and Western blots. In direct ELISAs, this antibody shows less than 1% cross-reactivity with rhGlyoxalase I.

## Applications

**Western blot** - An antibody concentration of 1.0 µg/mL is recommended.

**Direct ELISA** - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect Glyoxalase II. The detection limit for rhGlyoxalase II is approximately 1.5 ng/well.

**Optimal dilutions should be determined by each laboratory for each application.**



## Detection of Glyoxalase II with AF5944.

Cell and tissue lysates were resolved by SDS-PAGE, transferred to an Immobilon-P membrane and immunoblotted with 1.0 µg/mL goat anti-h/m/rGlyoxalase II.