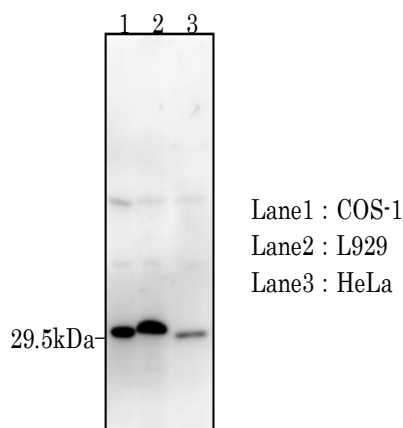


## Anti-glyoxalase I (GLO1) antibody, rat monoclonal (6F10)

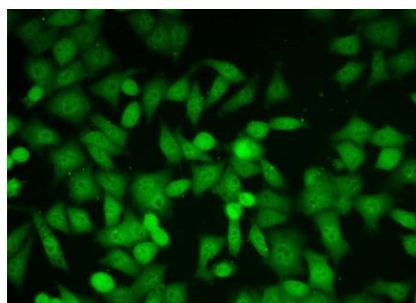
<b>Product code</b>	74-001
<b>Size</b>	100 µg
<b>Storage</b>	-20°C
<b>Concentration</b>	1.0 mg/ml
<b>Buffer</b>	PBS- with 50% glycerol
<b>Purity</b>	Purified IgG fraction with protein A from hybridoma cell culture medium.
<b>Immunogen</b>	Purified recombinant GST-fused mouse glyoxalase I (full length)
<b>Isotype</b>	Rat IgG2bκ
<b>Reactivity</b>	Human, simian, and mouse glyoxalase I. Other species are not tested.
<b>Special notes</b>	N/A
<b>Application</b>	<ol style="list-style-type: none"> <li>1. Western blotting (~1/1,000)</li> <li>2. Immunocytochemistry</li> <li>3. ELISA</li> </ol>
<b>Background</b>	<p>Glyoxalase I (GLO1) is an enzyme that plays a role in the detoxification of methylglyoxal (MG), a side-product of glycolysis, via condensation with glutathione to produce S-lactoyl-glutathione. GLO1 is a zinc metalloenzyme whose crystal structure has been solved. The bacterial and yeast enzymes are monomeric while the mammalian one is homodimeric and its sequence is well conserved. GLO1 is found over-expressed in some tumors. GLO1 has also been suggested to be involved in anxiety diseases, autism, and Alzheimer's disease. The antibody was produced from the hybridoma cultured in serum-free medium and purified under mild conditions by propriety chromatography processes.</p>
<b>Data Link</b>	UniProtKB <a href="#">Q9CPU0</a> (LGUL_MOUSE)
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

**Data Images:** 74-001 Anti-glyoxalase I (GLO1) antibody, rat monoclonal (6F10)



**Fig.1 Detection of GLO1 protein by Western blotting with antibody 6F10.**

Samples are whole cell extracts. Mouse (COS-1) GLO1 shows a single band of 27 kDa while human (HeLa) and simian (L929) ones show 29 kDa. The first antibody was used at 1/1,000 dilution and as the second antibody, goat anti-rat IgG antibody conjugated with HRP was used at 1/10,000 dilution.



**Fig.2 Immunofluoresnt staining of HeLa cells with antibody 6F10.**

Cells fixed with 4% paraformaldehyde. Permeabilized with 0.2% Triton X-100. The primary antibody was used at 1/500 dilution. as the second antibody, goat anti-rat IgG antibody conjugated with FITC was used at 1/5,000 dilution

## References

1. Chen F *et al* "Role for glyoxalase I in Alzheimer's disease" *Proc Natl Acad Sci USA* **101**: 7687–7692 (2004) PMID: [15128939](https://pubmed.ncbi.nlm.nih.gov/15128939/)
2. Junaid MA *et al* "Proteomic studies identified a single nucleotide polymorphism in glyoxalase I as autism susceptibility factor" *Am J Med Genet A* **131**: 11–17 (2004) PMID: [15386471](https://pubmed.ncbi.nlm.nih.gov/15386471/)
3. Hovatta I *et al* "Glyoxalase 1 and glutathione reductase 1 regulate anxiety in mice" *Nature* **438**: 662–666 (2005) PMID: [16244648](https://pubmed.ncbi.nlm.nih.gov/16244648/)