Product Datasheet

Glyoxalase I Antibody (Glo1a) - BSA Free
NBP1-19015SS

Unit Size: 0.025 ml

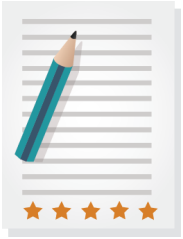
Store at -20C. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Reviews: 1 Publications: 8

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NBP1-19015

Updated 9/9/2025 v.20.1



NBP1-19015SS

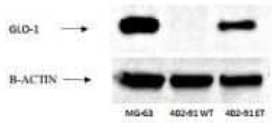
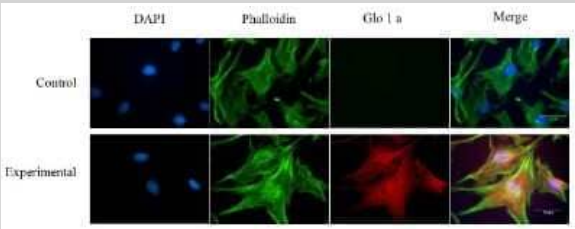
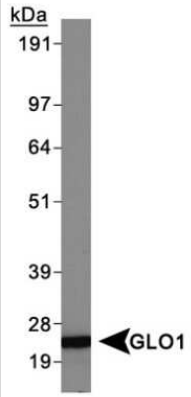
Glyoxalase I Antibody (Glo1a) - BSA Free

Product Information	
Unit Size	0.025 ml
Concentration	1 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	Glo1a
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	Tris-Glycine and 0.15M NaCl
Target Molecular Weight	21 kDa

Product Description	
Description	Novus Biologicals Mouse Glyoxalase I Antibody (Glo1a) - BSA Free (NBP1-19015) is a monoclonal antibody validated for use in IHC, WB, ELISA, ICC/IF, Simple Western and IP. Anti-Glyoxalase I Antibody: Cited in 7 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	2739
Gene Symbol	GLO1
Species	Human, Mouse
Immunogen	Full length human GLO1 protein [Swiss-Prot #Q04760].

Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation
Recommended Dilutions	Western Blot, Simple Western 1:50, ELISA 0.15 ng / 1 ug protein, Immunocytochemistry/ Immunofluorescence 10 ug/ml, Immunoprecipitation reported in scientific literature, Immunohistochemistry-Paraffin reported in scientific literature (10.3892/ol.2021.12808)
Application Notes	This GLO1 antibody is useful for ELISA, Immunocytochemistry/Immunofluorescence and Western blot, where a band is seen approx. 21 kDa. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in HeLa lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:50, apparent MW was 32 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

Western Blot: Glyoxalase I Antibody (Glo1a) [NBP1-19015] - Detection of GLO-1 in human cell lines. Lane 1,2 and 3: MG-63 osteosarcoma cell line (positive control), 402-91 liposarcoma cell line and 402-91 liposarcoma cell line resistant to trabectedine. Image from verified customer review.	
Immunocytochemistry/Immunofluorescence: Glyoxalase I Antibody (Glo1a) [NBP1-19015] - Immunostaining of human retinal endothelial cells. Immunoreactivity for hGlx-1 was detected in human retinal endothelial cells stained with Glo1a mAb using anti mouse IgG Texas Red as secondary Ab. The cells were counter stained with phalloidin (green) and DAPI (blue), nuclear stain. No reactivity was detected in control cells, stained without Go1a mAb. Figure is a representative of 3 independent experiments. Photo courtesy of Dr. Nagaraj, Case Western Reserve University.	
Western Blot: Glyoxalase I Antibody (Glo1a) [NBP1-19015] - HeLa whole cell extracts.	
Simple Western: Glyoxalase I Antibody (Glo1a) [NBP1-19015] - Simple Western lane view shows a specific band for GLO1 in 0.5 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230kDa separation system. * Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.	

Simple Western: Glyoxalase I Antibody (Glo1a) [NBP1-19015] - Simple Western lane view shows a specific band detected for GLO1 in HeLa lysate. This experiment was performed under reducing conditions using the Wes or Sally Sue separation system 12-230kDa (or 66-440kDa).

Publications

Suh EH, Geraldes CFGC, Chirayil S et al. Detection of glucose-derived D- and L-lactate in cancer cells by the use of a chiral NMR shift reagent Cancer & Metabolism 2021-12-01 [PMID: 34742347] (Immunoprecipitation, Western Blot, Mouse)

Inoue M, Nakagawa Y, Azuma M et al. The PKM2 inhibitor shikonin enhances piceatannol-induced apoptosis of glyoxalase I-dependent cancer cells Genes to cells : devoted to molecular & cellular mechanisms 2023-11-14 [PMID: 37963646] (Western Blot, Human)

Motomura H, Ozaki A, Tamori S et al. Glyoxalase 1 and protein kinase Clambda as potential therapeutic targets for late stage breast cancer Oncology Letters 2021-05-24 [PMID: 34093768] (IHC-P, Human)

Punzalan LL, Jiang L, Mao D et al. Chemoproteomic Profiling of a Pharmacophore-Focused Chemical Library Cell Chem Biol 2020-04-28 [PMID: 32402240] (WB, Human)

Luengo A, Abbott KL, Davidson SM, et al. Reactive metabolite production is a targetable liability of glycolytic metabolism in lung cancer Nat Commun 2019-12-06 [PMID: 31811141] (WB, Mouse)

Halbert D, Domenyuk V, Spetzler D et al. Aptamers and uses thereof United States Patent Application US 9958448 B2 2018-01-01

Zeng S, Zhang QY, Huang J et al. Opposing roles of RAGE and Myd88 signaling in extensive liver resection. The FASEB Journal: Official Publication of the Federation of American Societies for Experimental Biology. 2011-11-10 [PMID: 22075646] (WB, Mouse)

Mailankot M et al. Glyoxalase I activity and immunoreactivity in the aging human lens. Biogerontology. 2009-02-24 [PMID: 19238574] (IP, WB, Mouse)

Procedures

Western Blot protocol for GLO1 Antibody (NBP1-19015)
Glyoxalase I Antibody (Glo1a):
Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 30 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH2O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-GLO1 primary antibody (NBP1-19015) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted mouse-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

**Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, providedit does not interfere with antibody-antigen binding.

Immunocytochemistry/Immunofluorescence Protocol for GLO1 Antibody (NBP1-19015)
Glyoxalase I Antibody (Glo1a):
Immunocytochemistry Protocol

1. Cells are cultured one day prior to the experiment.
2. After washing twice with PBS and they are fixed with 4% paraformaldehyde in PBS at ?20C for 15 min.
3. Followed by two washes with PBS, they are permeabilized with 0.1%Triton X-100 in PBS at ?20C for 5 min.
4. To remove the detergent the cells are washed5 times with PBS and then blocked with 2.5 % goat serum in PBS for 2 hr at RT.
5. Cells are then incubated with GLOI mAb (10 μg/ml) in PBS for 1 hr at RT and washed twice for 5 min with PBS.
6. Cells are incubated with secondary antibody (anti-mouseIgG) conjugated with Texas Red (1: 400 dilution in PBS) (Molecular Probes) for 1 hr at RT.

Images of lenses were acquired on a Leica DMI 6000 B inverted microscope using a 20x objective connected to a Retiga EXI camera (Q-imaging Vancouver British Columbia). Secondary Ab contribution to immune reaction was verified by staining without the primary Ab.

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NBP1-19015

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications