

Datasheet for UniGlow-0020**UniGlow™ - One Component Chemiluminescent Substrate****Overview**

Description:	UniGlow™ - One Component Chemiluminescent Substrate - UniGlow-0020
Item No.:	UniGlow-0020
Size:	20 mL
Applications:	ELISA, Microarray, WB

Product Details

Background:	Enhanced Chemiluminescence (ECL) involves the enzymatic oxidation of luminol, a process that is catalyzed by peroxidase (HRP) enzyme. In the presence of HRP and a peroxide, luminol is oxidized, and emits light. The intensity of the emitted light is proportional to the amount of HRP-bound target, allowing for the quantitative detection of proteins.
Synonyms:	Western Blot detection, chemiluminescent substrate One Component System, luminol-based chemiluminescent substrate for horseradish peroxidase (HRP) detection

Target Details

Relevant Links:	UniGlow SDS
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Application Details

Suggested Applications:	ELISA, Microarray, WB (Based on references)
Application Note:	UniGlow™ is a highly sensitive, nonradioactive, enhanced luminol-based, chemiluminescent, ready-to-use peroxidase (HRP) substrate and no mixing is required. UniGlow™- One Component Chemiluminescent Substrate is for use in microwell or membrane applications. Protect from light - UniGlow™ Substrate is a highly sensitive detection reagent allowing for the detection of picograms (6-12 pg) amounts of antigen. Equilibrate to room temperature before use and aliquot into a clean container. Use ~100µL/cm ² of membrane. Optimal detection visualized after contact of substrate with HRP enzyme on membrane for ~1-10min. Blot off excess substrate before imaging. Always carefully optimize all components of individual assays (antigens, antibodies, conjugates...) to minimize background reactivity associated with non-specific binding.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 1X

WB: 1X

Formulation

Physical State: Liquid - light red colored

Concentration: 1 X

Shipping & Handling

Shipping Condition: Ambient

Storage Condition: Store container at 2-8° C prior to opening. Protect from moisture and light. No special shipping conditions or precautions are required.

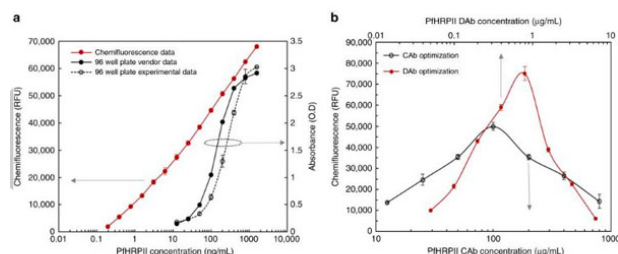
Expiration: Expiration date is two (2) years from date of receipt.

Images



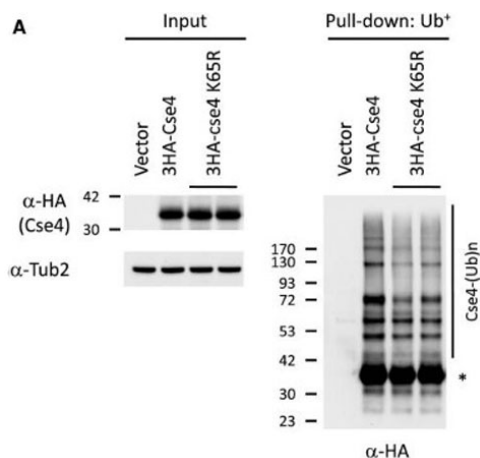
Bottle

UniGlow™ - One Component Chemiluminescent Substrate



ELISA

Optimization results of the assay reagents. a 96 well plate assay results plotted on the right axis and Chemifluorescence assay result obtained from Optimizer™ microfluidic microplate is plotted on the left axis showing lower LOD and higher dynamic range and b Chemifluorescence signal output variation with increase in PfHRP2 capture antibody (CAb) concentration (bottom axis) and increase in PfHRP2 detection antibody (DAb-HRP) concentration (top axis) at a fixed DAb-HRP concentration (0.1 μg/mL) and at a fixed CAb concentration (100.0 μg/mL), respectively. Each point represents the mean of three replicates. Fig. 4. PMID: 34567620.



Western Blot

Cse4 ubiquitination is reduced in a cse4 K65R mutant. (A) Protein extracts were prepared from wild-type strain (BY4741) transformed with vector (pMB433), pGAL-3HA-CSE4 (pMB1458), or pGAL-3HA-cse4 K65R (pMB1791) grown in raffinose/galactose (2%) for 4 hr to induce expression of Cse4. Agarose-TUBE1 was used to pull down tandem ubiquitin binding entities and ubiquitination levels of Cse4 were detected by western blot analysis with anti-HA antibody. Input samples were analyzed using anti-HA (Cse4) and anti-Tub2 antibodies. Asterisk shows non-modified Cse4. One Component Chemiluminescent Substrate (p/n UniGlow-0100). Figure 2. PMID: 29432128.

References

- Shrestha RL et al. CENP-A overexpression promotes aneuploidy with karyotypic heterogeneity. *J Cell Biol.* (2021)
- Ghosh S et al. A new microchannel capillary flow assay (MCFA) platform with lyophilized chemiluminescence reagents for a smartphone-based POCT detecting malaria. *Nature.* (2020)
- Sthitodhi Ghosh et al. A new microchannel capillary flow assay (MCFA) platform with lyophilized chemiluminescence reagents for a smartphone-based POCT detecting malaria. *Microsyst Nanoeng.* (2020)
- Trabbic K., Whalen K., Abarca-Heideman K., Xia L., Temme J., Edmondson E., Gilersleeve J., Barchi J. A Tumor-Selective Monoclonal Antibody from Immunization with a Tumor-Associated Mucin Glycopeptide. *Nature Scientific Reports.* (2019)
- Ohkuni K et al. N-terminal sumoylation of centromeric histone H3 variant Cse4 regulates its proteolysis to prevent mislocalization to non-centromeric chromatin. *G3 (Bethesda).* (2018)
- Shrestha RL et al. Mislocalization of centromeric histone H3 variant CENP-A contributes to chromosomal instability (CIN) in human cells. *Oncotarget.* (2017)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.