

Datasheet for 200-345-200**GST Antibody DyLight™ 800 Conjugated****Overview**

Description:	Anti-GST (MOUSE) Monoclonal Antibody DyLight™ 800 Conjugated - 200-345-200
Item No.:	200-345-200
Size:	100 µg
Applications:	Dot Blot, ELISA, WB
Reactivity:	GST-Tag
Host Species:	Mouse

Product Details

Background:	Rockland produces a wide range of GST antibodies in our laboratories. Select GST antibodies from several monoclonal and/or polyclonal GST antibodies listed below. Select appropriate GST antibodies for your research by isotype, epitope, applications and species reactivity. GST (Glutathione-S-Transferase) is a protein expression tag commonly used in molecular biology. Anti-GST will react with synthetic construct present in most known GST containing cloning or expression vectors. GST is responsible for the conjugation of reduced glutathione to a wide number of exogenous and endogenous hydrophobic electrophiles. The amino acid sequence GST is highly conserved in most organisms including mammals. GST exists as a 26 kDa homodimer.
Synonyms:	mouse anti-GST antibody DyLight™ 800 conjugation, DyLight™800 conjugated mouse anti-GST antibody, Glutathione-S-Transferase, Anti-GST monoclonal antibody
Host Species:	Mouse
Conjugate:	DyLight™ 800
Clonality:	Monoclonal
Clone ID:	3D4
Format:	IgG1
F/P Ratio:	2.6

Target Details

Reactivity:	GST-Tag
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Immunogen Type:	Native Protein
Immunogen:	BALB/c mice were immunized with GST from full length Schistosoma japonicum protein. A hybridoma was produced by the fusion of BALB/c mouse splenocytes and myeloma cells using conventional hybridoma technology.
Purity/Specificity:	This product was prepared from tissue culture supernatant by Protein A affinity chromatography. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Mouse Serum and purified and partially purified Glutathione-S-Transferase (GST).

Application Details

Tested Applications:	Dot Blot, ELISA
Suggested Applications:	WB (Based on references)
Application Note:	Anti-GST DyLight™800 has been tested by ELISA and dot blot. This product is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. This product is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms. The emission spectra for this DyLight™ conjugate match the principle output wavelengths of most common fluorescence instrumentation.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FLISA:	>1:20,000
IF:	>1:5,000
WB:	1:10,000-1:25,000

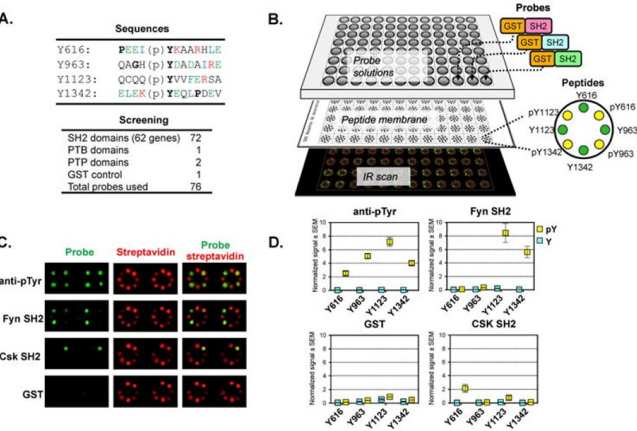
Formulation

Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



ELISA

A. Seventy-four phosphotyrosine interacting domains (SH2, PTP, and PTB) and a GST control were tested. The probe list is provided in Supplemental Table S2. The sequences of the four internal Kal7 pY peptides tested are shown. B. Overview of SH2 screen. Four pairs of phosphorylated and non-phosphorylated peptides were immobilized in a rosette pattern; after incubation with the GST-tagged probes, signal was detected with infrared (IR) dye labeled secondary antibodies. C. Representative IR scan data are shown; green signal indicates probe binding and red signal monitors peptide loading using streptavidin. The pY antibody control confirms the phosphorylation state of the biotinylated peptide. The GST control assesses background. In this panel, Fyn-SH2 bound strongly to pY1123 and pY1342, while Csk-SH2 bound only to pY616. D. Quantified results for pY, Fyn-SH2, Csk-SH2, and GST probes. Signal for each peptide was normalized to the streptavidin signal for that peptide; values plotted are the average of quadruplicates with SEM. As seen in the streptavidin signal, the pY1123 peptide bound relatively poorly to the membrane; the ratiometric quantification corrects for this.

Fig 4.

PMID: 28418645

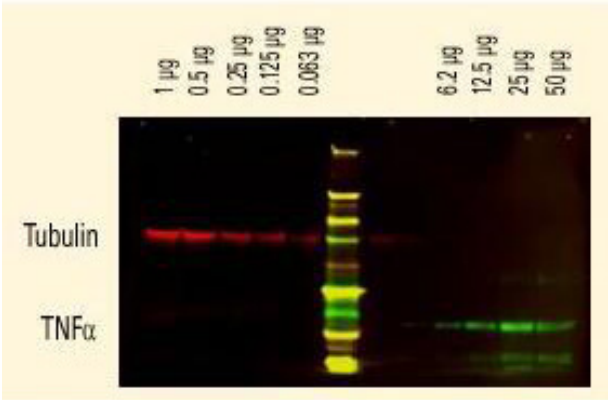


Western Blot

Rockland Mouse-a-GST (200-301-200 lot 24882, blue), Rabbit anti-Transferrin (109-4134 lot 3033), and Goat-anti-Alpha-1-Anti-Trypsin (100-101-147 lot 5842) were used in a multiplex system to detect target proteins under reducing (R) conditions (+4% BME) in albumin depleted human serum with 320 ng of added GST. Sample was run by SDS-PAGE, transferred to 0.2 um PVDF using the BioRad Trans-Blot Turbo and blocked in 2.5% Blotto, 2.5% BSA, 0.02% Tween over night at 4°C. Membrane was probed with three primary antibodies at 1:1000 dilution (in MB-070 over night at 4°C). Detection shown was using DyLight549 Donkey anti-Rabbit IgG (611-742-127 lot 21100, shown as green) DyLight 488 Donkey anti-Mouse IgG (610-741-124 lot 21095, shown as blue), and DyLight 649 Donkey anti-Goat IgG (605-743-125 lot 20834, shown as red) at 1:10000 (in MB-070 30 min RT). Blots were washed, rinsed in methanol, dried and Images were collected using the BioRad VersaDoc System.

Western Blot

DyLight™ dyes can be used for two-color western blot detection with low background and high signal. Anti-tubulin was detected using a DyLight™ 680 conjugate. Anti-TNFα was detected using a DyLight™ 800 conjugate. The image was captured using the Odyssey® Infrared Imaging System developed by LI-COR.

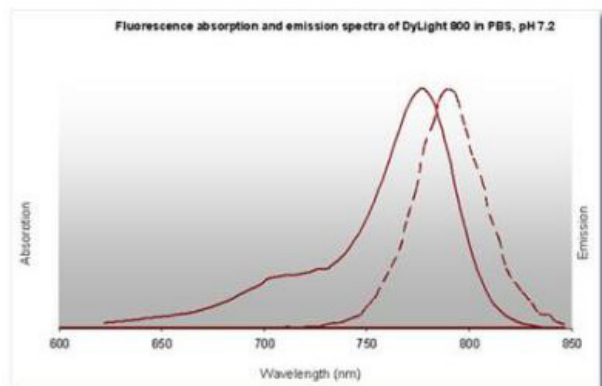


Western Blot

Properties of DyLight™ Conjugates.

Emission	Color	DyLight™ Dye	Ex/Em (nm)	ϵ (M ⁻¹ cm ⁻¹)	Similar Dyes
Blue		405	400/420	30,000	Alexa™ 405, Cascade Blue
Green		488	493/518	70,000	Alexa™ 488, Cy2®, FITC
Yellow		549	550/568	150,000	Alexa™ 546, Alexa 555, Cy3®, TRITC
Red		649	646/674	250,000	Alexa™ 647, Cy5®
Near Infrared		680	682/715	140,000	Alexa™ 680, Cy5.5®, IRDye™ 700
Infrared		800	770/794	270,000	IRDye™ 800

Diagram



References

- Miller, MB et al. Brain Region and Isoform-Specific Phosphorylation Alters Kalirin SH2 Domain Interaction Sites and Calpain Sensitivity. *Acs Chemical Neuroscience* (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.