

Datasheet for 18-0217-32**Fluorescent TrueBlot®: Anti-Mouse Ig Fluorescein****Overview**

Description:	Fluorescent TrueBlot®: Anti-Mouse Ig Fluorescein - 18-0217-32
Item No.:	18-0217-32
Size:	100 µL
Applications:	IF, IP, WB, FISH
Reactivity:	Mouse
Host Species:	Rat

Product Details

Background:	Mouse IgG TrueBlot® is a unique fluorescein conjugated Anti-mouse IgG monoclonal secondary antibody. Mouse IgG TrueBlot® enables detection of immunoblotted target protein bands, without hindrance by interfering immunoprecipitating immunoglobulin heavy and light chains. It is easy to generate publication-quality IP/Fluorescent Western Blot data with Mouse IgG TrueBlot®, simply substitute the conventional FITC Anti-mouse IgG blotting reagent with Fluorescent Mouse TrueBlot® Antibody Fluorescein and follow the prescribed protocol for sample preparation and immunoblotting. Mouse IgG TrueBlot® is ideal for use in protocols involving immunoblotting of immunoprecipitated proteins. TrueBlot preferentially detects the non-reduced form of mouse IgG over the reduced, SDS-denatured form of IgG. When the immunoprecipitate is fully reduced immediately prior to SDS-gel electrophoresis, reactivity of Mouse IgG TrueBlot® with the 55 kDa heavy chains and the 23 kDa light chains of the immunoprecipitating antibody is minimized thereby eliminating interference by the heavy and light chains of the immunoprecipitating antibody in IP/Western blot applications. Applications include studies examining post-translational modification (e.g., phosphorylation or acetylation) or protein-protein interactions.
Synonyms:	Anti-Mouse IgG FITC, TrueBlot, FITC TrueBlot ULTRA, Fluorescein TrueBlot, TrueBlot for IP/WB, TrueBlot for immunoprecipitation, TrueBlot for western blotting, Fluorescent TrueBlot, Ms TrueBlot
Host Species:	Rat
Conjugate:	Fluorescein (FITC)
Clonality:	Monoclonal
Clone ID:	eB144

Format:	IgG
F/P Ratio:	3.6

Target Details

Reactivity:	Mouse
Purity/Specificity:	Fluorescent Mouse TrueBlot® Antibody Fluorescein Conjugate was prepared from tissue culture supernatant by Protein G affinity chromatography. Assay by Immunoelectrophoresis resulted in a single precipitin arc against anti-fluorescein and Anti-Mouse Serum. Reactivity is observed against native Mouse IgG by both Western blot and ELISA.
Relevant Links:	Fluorescent TrueBlot® Anti-Mouse Ig Fluorescein IP Western Blot Protocol

Application Details

Tested Applications:	IF, IP, WB
Suggested Applications:	FISH (Based on references)
Application Note:	Fluorescent Mouse TrueBlot® Antibody Fluorescein has been tested in immunofluorescence, immunoprecipitation, and western blot. Fluorescein Conjugated Antibodies are designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA), fluorescent western blotting, multiplex analysis, including multicolor imaging, utilizing various commercial platforms. Fluorescent Mouse TrueBlot® Antibody Fluorescein is provided as a lyophilized powder. To conserve reagent, we recommend incubating the blots from minigels in sealed bags (removing as much air as possible) with minimal volume (2-3 mLs). If used conservatively at 2.5mls/blot will yield enough reagent for 40 blots. Note that there are three key procedural considerations: 1. Protein A or G beads may be used with the mouse, goat and sheep TrueBlot secondaries, but not with the rabbit TrueBlot secondary. Use of protein A or G beads with the rabbit TrueBlot will result in contaminating bands. 2. Immunoprecipitate should be completely reduced. 3. MB-070 Blocking Buffer for Fluorescent Western Blotting should be used as the blocking protein for the immunoblot. Note: To achieve best results when detecting mouse IgG1 subtypes, we recommend performing a dot blot or titration to determine the optimal dilution factor for your desired application. All recommended dilutions for listed applications are intended as an initial recommendation, specific conditions for each protein and antibody combination should be specifically optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FC:	1:2,000 - 1:10,000
FLISA:	User Optimized
IF:	1:500 - 1:2,500

IHC:	User Optimized
WB:	1:1000

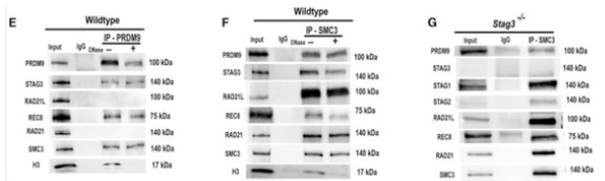
Formulation

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 Polyethylene Glycol (PEG-8000)
Reconstitution Volume:	100 μ L
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

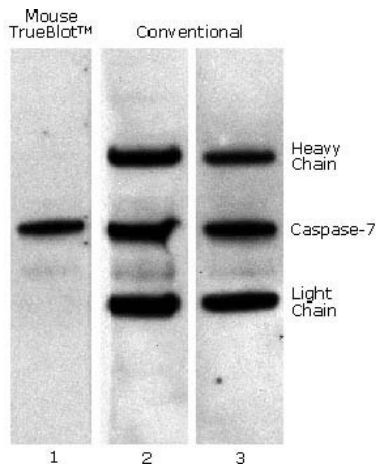


Immunoprecipitation

(E&F) Co-immunoprecipitation of PRDM9 with chromosomal axis proteins STAG3, REC8, and SMC3 from wildtype 14-dpp spermatocytes (E), confirmed by reverse co-immunoprecipitation with anti-SMC3 antibody (F). Input extract, 20 μ g (2.5 μ g in the RAD21, SMC3 and H3 blots); lane 2, 20 μ g extract coIP with nonimmune IgG; α PRDM9 and α SMC3 (F), 20 μ g extract coIP with the respective antibody, either not-treated ("–") or treated ("+") with DNase. Histone H3 IP was used to detect efficiency of DNase treatment. The antibodies used to detect specific proteins are shown on the left and the relevant molecular weights are shown on right of each blot. For quantified values of protein bands please refer to Table S1 and S2.

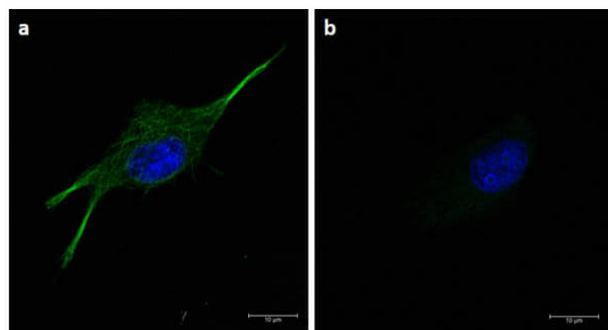
(G) Co-immunoprecipitation of PRDM9 and cohesin proteins from Stag3^{–/–} spermatocytes. This analysis confirmed that PRDM9 can be associated with other cohesin subunits in absence of STAG3, and demonstrates the protein-protein interaction of REC8 and RAD21L with other cohesin subunits in absence of STAG3 previously reported [7]. Input extract, 20 μ g (2.5 μ g in the STAG1, STAG2, RAD21 and SMC3 blots); lane 2, 20 μ g extract coIP with nonimmune IgG and lane 3, 20 μ g extract coIP with SMC3 antibody. The relevant molecular weights are shown on right of each blot.

Fig 1. PMID: 30853435



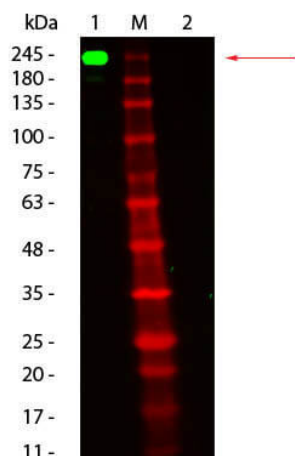
Western Blot

Mouse TrueBlot[®] IP / Western Blot: Caspase 7 was immunoprecipitated from 0.5 ml of 1x10⁷ Jurkat cells/ml with 5 μ g mouse anti-human Caspase 7. Precipitate from 1x10⁶ cells was subjected to electrophoresis, transferred to a PVDF membrane, and Western blotted with anti-Caspase 7 using Mouse TrueBlot[®] ULTRA: Anti-Mouse Ig HRP (Lane 1) or conventional HRP-conjugated anti-mouse antibody (Lane 2) - note the detection of the heavy and light chains of the immunoprecipitating antibody in Lane 2 but not in Lane 1. When Lane 1 is re-immunoblotted using conventional HRP-conjugated anti-mouse polyclonal antibody (Lane 3), the heavy and light chains are now detected, confirming that although the immunoprecipitating heavy and light chains are present, Mouse TrueBlot[®] ULTRA: Anti-Mouse Ig HRP detects only native antibody and not denatured heavy and light chains.



Immunofluorescence Microscopy

Immunofluorescence microscopy of α -tubulin in U-87 MG cells using FITC-conjugated Fluorescent TrueBlot® anti-mouse IgG (p/n 18-0217-32) for detection. U87-MG cells were fixed with 100% methanol, blocked (5% rat serum/0.3% Triton X-100) for 1hr, then incubated with 15 μ g/mL of anti- α -tubulin primary antibody (p/n 200-301-880) at 4°C overnight. Following 3 washes in 1X PBS for 5min each, 5 μ g/mL of Fluorescent TrueBlot® anti-mouse IgG Fluorescein was added and allowed to incubate for 1hr at room temperature. 5 μ g/mL of Fluorescent TrueBlot® anti-mouse IgG FITC was added and allowed to incubate for 1hr at room temperature. Nucleus was counterstained with DAPI present in mounting medium. The predicted main localization is microtubules. Image taken at 63X magnification. (a) Merged α -tubulin (green)/DAPI (blue) image shown (b) secondary only.



Western Blot

Western Blot of Fluorescent TrueBlot®: Anti-Mouse IgG Fluorescein. Lane 1: Mouse IgG, Non-reduced. Lane 2: Mouse IgG, Reduced. Load: 50 ng per lane. Primary antibody: none. Secondary antibody: Fluorescent TrueBlot®: Anti-Mouse IgG Fluorescein at 1:1,000 for 60 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 160 kDa for Mouse IgG, Non-reduced. Migrates at slightly higher molecular weight. Other band(s): none.

References

- Bhattacharya T et al. Prdm9 and meiotic cohesin proteins cooperatively promote DNA double-strand break formation in mammalian spermatocytes. *Curr Biol.* (2019)

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.