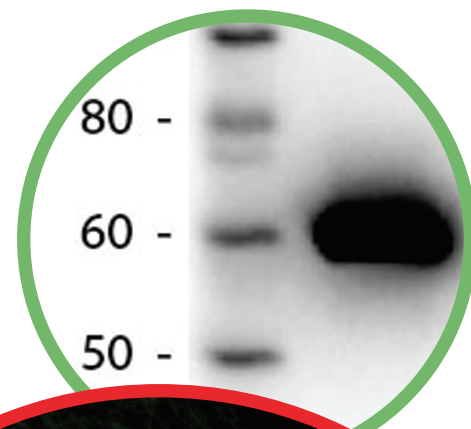
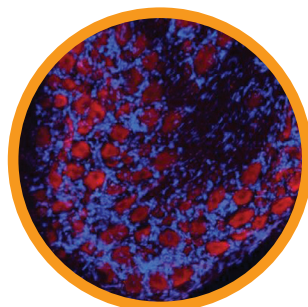
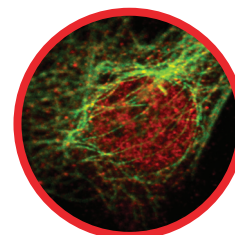
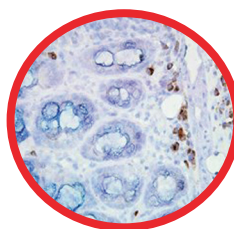
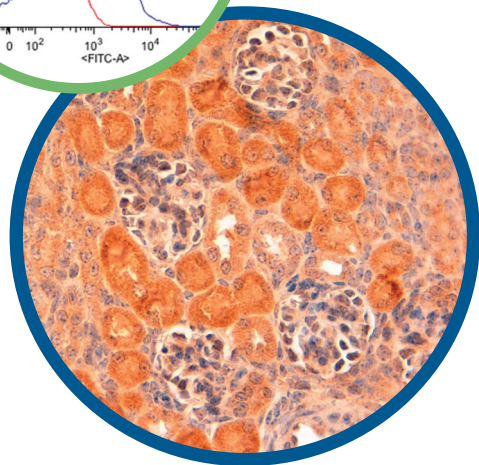
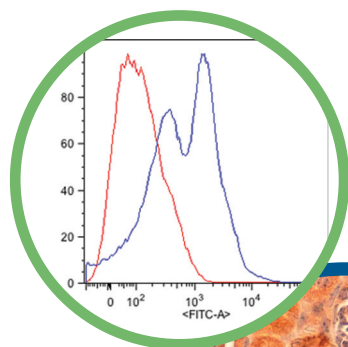
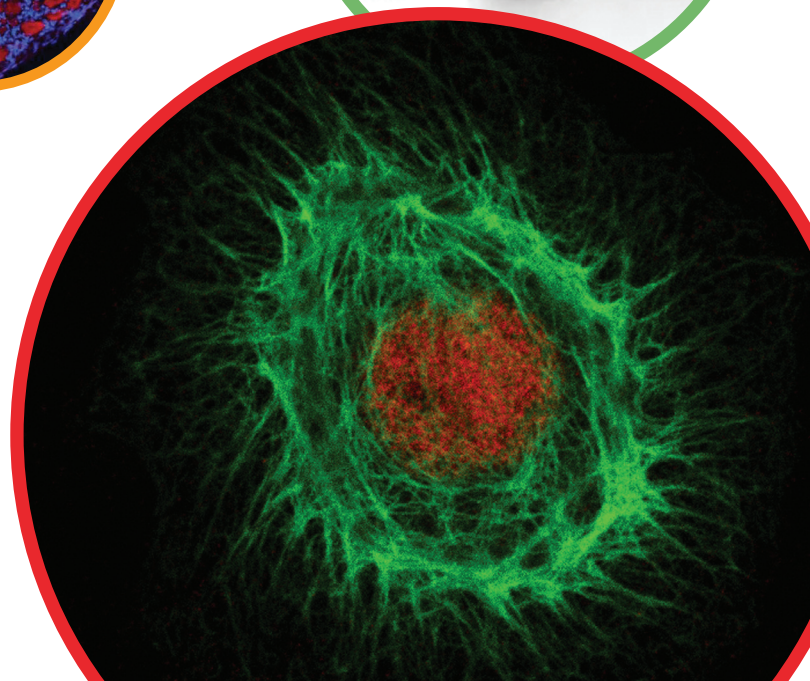


# Quality Antibodies and Reagents for Consistent Results

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NEW FLOW CYTOMETRY ANTIBODIES  
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# Rockland. A name synonymous with reliability, specificity, and sensitivity.

Our staff agrees that your experiments are of the utmost importance, and that's why our antibodies & antibody based tools do not leave our facility until they pass our rigorous barrage of quality control tests. Our scientists validate the performance of antibodies by assays commonly used by most researchers including ELISA, western blotting, flow cytometry and immunohistochemistry. Because we produce our own antiserum, at our animal facilities, and purify and test each antibody in our laboratories, we can guarantee the quality of every product we make. Furthermore, each product line is multi-assay validated to ensure uncompromised research conditions.

We are one of the most referenced companies in the industry and continue to collaborate to develop products such as isoform specific AKT antibodies, GFP and RFP antibodies, and epigenetic secondary antibodies validated by the most demanding assays. Rockland products are guaranteed to give predictable, repeatable results.

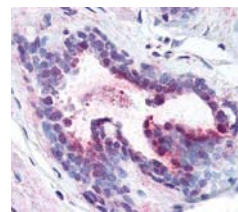


Rockland partners with researchers in highly reputable organizations around the world to discover groundbreaking innovation in a variety of scientific genres. Through these partnerships, our scientists can create the antibodies needed to yield new advances, providing highly specialized tools and systems that deliver the finest results.



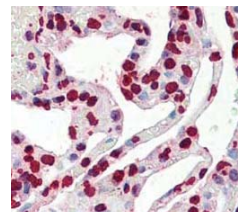
### 1.) PDCD4 phospho S457 Antibody

Developed with The National Cancer Institute  
600-401-964



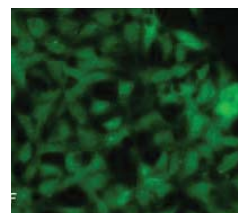
### 2.) Histone H3 Antibody

Developed with Emory University  
100-401-E81



### 3.) IDO2 Antibody

Developed with the Lankenau Institute for Medical Research  
600-401-C69



# Intracellular Staining

Many cell types can be easily identified using flow cytometry. Traditionally use of cell surface markers allowed for simple 2 – 4 marker assays, but more recently up to more than a dozen markers in more complex flow cytometry experiments can be achieved. For analysis of intracellular targets or biomarkers, flow cytometry experiments can be more difficult in setup, but readily performed if the suitable antibody reagents are available.

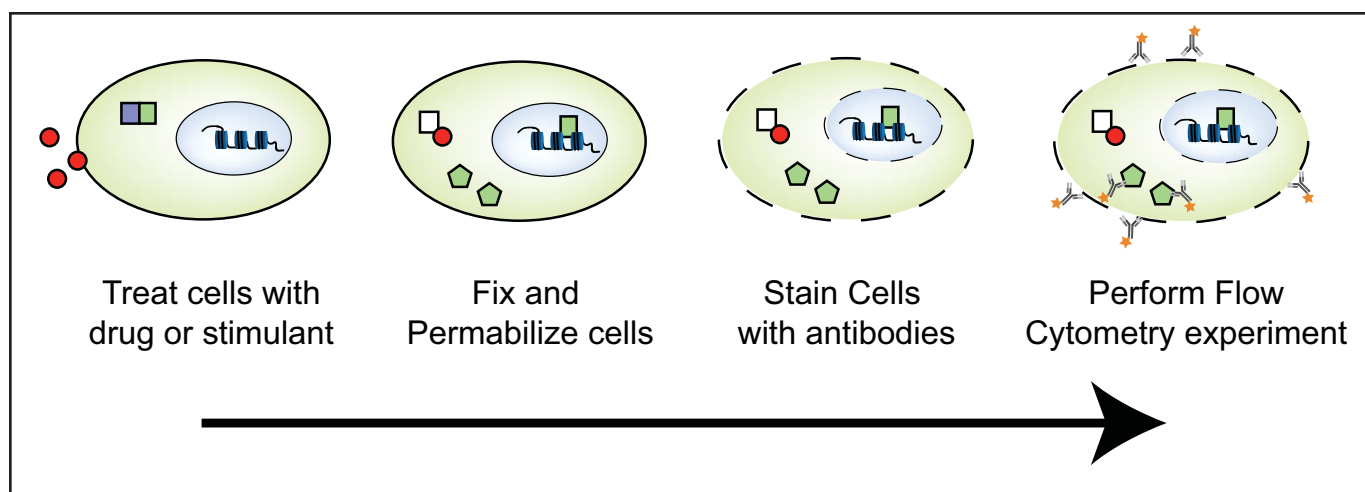
Western blot is still one of the most frequent methods used for the investigation of proteins targets expressed by single cell populations. By using flow cytometry, single and multiple protein targets can be detected simultaneously in individual cells and cell population distributions can be examined.

Rockland Immunochemicals provides immunoreagents for intracellular flow cytometry experiments including fluorochrome-conjugated primary and secondary antibodies, buffers, and kits. Our flow cytometry reagents are validated in relevant cell lines and biological context.

Robust antibody tools allow for breakthroughs and innovation in fields such as immunology, cancer, epigenetics and stem cell research. Rockland's intracellular flow cytometry antibodies are suitable for detection of cytokines, transcription factors, phosphorylated proteins.

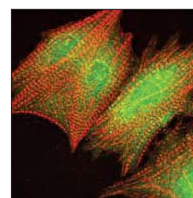
## Fundamentals of Intracellular Staining for Flow Cytometry

Cells treated with experimental conditions, i.e. drug or stimulant. The cells are fixed using traditional methods and permeabilized. Lastly, the cells are stained with a fluorochrome conjugated antibody. The cells are ready for analysis of intracellular targets by flow cytometry. Cytosolic proteins do not require special treatment, however to examine secreted proteins, cells must first be treated with a protein transport inhibitor (i.e. Brefeldin A or Monensin) that drives accumulation of the target proteins inside the cell.

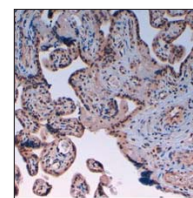


# Flow Cytometry : Intracellular

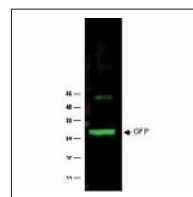
PRODUCT NAME	CATALOG#	APPLICATIONS	SIZE
Anti-AKT pan (Mouse)	200-301-401	ELISA, WB, IHC, FC	100 µg
Anti-AKT1 (Mouse)	200-301-151	ELISA, WB, IHC, FC	100 µg
Anti-AKT2 (Rat)	200-501-E71	ELISA, WB, IHC, FC	100 µg
Anti-AKT phospho pT308 (Mouse)	200-301-269	ELISA, WB, IHC, FC	100 µg
Anti-AKT phospho pS473 (Mouse)	200-301-268	ELISA, WB, IHC, IF, FC	100 µg
Anti-AKT pS473 (Rabbit)	600-401-268	ELISA, WB, IHC, FC	100 µg
Anti-ATG13 pS318 (Rabbit)	600-401-C49	ELISA, WB, FC	100 µg
Anti-ATM Protein Kinase pS1981 (Mouse)	200-301-500	ELISA, WB, IHC, FC	100 µg
Anti-Aurora B pT232 (Rabbit)	600-401-677	ELISA, WB, IF, FC	100 µg
Anti-DNA PKcs pT 2609 (Rabbit)	600-401-494	ELISA, WB, FC	100 µg
Anti-GFP (Rabbit)	600-401-215	ELISA, WB, IHC, FC	100 µg
Anti-Gli-3 (Rabbit)	600-401-694	ELISA, WB, IHC, FC	100 µg
Anti-Lysine Acetylated (AcK) (Rabbit)	600-401-939	ELISA, WB, IHC, FC	100 µg
Anti-NFKB p65 (Rel A) (Rabbit)	600-401-265	ELISA, WB, IHC, FC	100 µg
Anti-PPAR alpha (N-terminal specific) (Rabbit)	600-401-421	ELISA, WB, IHC, FC	100 µg
Anti-SMAD3 pS423 pS425 (Rabbit)	600-401-919	ELISA, WB, IHC, FC	100 µg
Anti-Telomerase catalytic subunit (Rabbit)	600-401-252	ELISA, WB, IHC, IF, FC	100 µg
Antibody for the detection of FLAG™ conjugated proteins (Rabbit)	600-401-383	ELISA, WB, IF, FC	250 µg



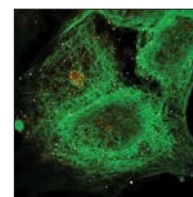
Rb anti-AKT pS473



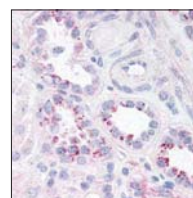
Rb anti-Aurora B Phospho pT232



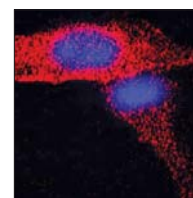
Rb anti-GFP



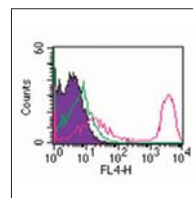
Rb anti-Gli-3



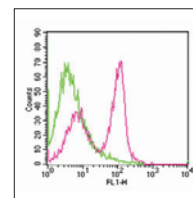
Rb anti-NFKB p65 phospho S536



Rb anti-Telomerase catalytic subunit



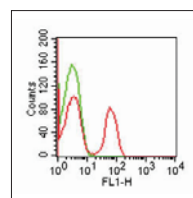
Ms anti-CD3 APC



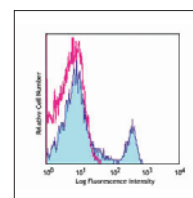
Arm Hm anti-CD3e Fluorescein Antibody

# Flow Cytometry : Cell Surface

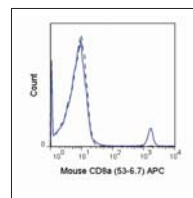
PRODUCT NAME	Clone ID	Allophycocyanin	Fluorescein	Phycoerythrin
Anti-CD3 (Mouse)	OKT3	200-326-M62 500 µL	200-302-N12 500 µL	200-308-M62 500 µL
Anti-CD3 epsilon (Armenian Hamster)	145-2C11		200-B02-M69 100 µg	200-B08-M69 100 µg
Anti-CD4 (Mouse)	RPA-T4	200-326-M63 500 µL	200-302-M63 500 µL	200-308-M63 500 µL
Anti-CD4 (Rat)	GK1.5		200-502-M70 500 µg	200-508-M70 200 µg
Anti-CD8 (Mouse)	RPA-T8	200-326-M64 500 µL	200-302-M64 500 µL	
Anti-CD8a (Mouse)	HIT8a	200-326-N61 500 µL	200-302-N61 500 µL	200-308-N61 500 µL
Anti-CD8a (Rat)	53-6.7	200-526-N77 100 µg	200-502-N77 500 µg	200-508-N77 100 µg



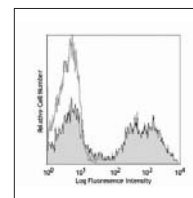
Ms anti-CD4 Fluorescein



Rt anti-CD4 Fluorescein

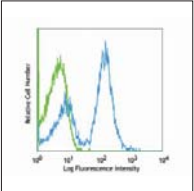
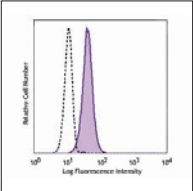
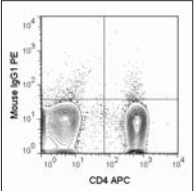


Rt anti-CD8a Allophycocyanin



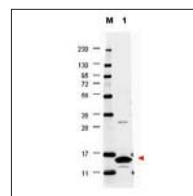
Rt anti-CD11b Phycoerythrin

# Flow Cytometry : Extracellular

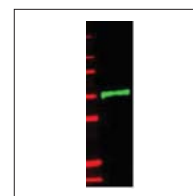
PRODUCT NAME	Clone ID	Allophycocyanin	Fluorescein	Phycoerythrin		
Anti-CD11b (Mouse)	ICRF44	200-326-N20 500 µL	200-302-N20 500 µL	200-308-N20 500 µL		
Anti-CD11b (Rat)	M1/70	200-526-N79 100 µg	200-502-N79 500 µg	200-508-N79 200 µg		
Anti-CD11c (Mouse)	3.9	200-326-N63 500 µL	200-302-N63 500 µL	200-308-N63 500 µL		
Anti-CD16/32 (Rat)	93	200-526-N80 100 µg	200-502-N80 500 µg	200-508-N80 200 µg		
Anti-CD19 (Mouse)	H1B19	200-326-N24 500 µL	200-302-N24 500 µL	200-308-N24 500 µL		
Anti-CD20 (Mouse)	2H7	200-326-N64 500 µL	200-302-N64 500 µL	200-308-N64 500 µL		
Anti-CD25 (Mouse)	BC96	200-326-N25 500 µL	200-302-N25 500 µL	200-308-N25 500 µL	Ms anti-CD25 Phycoerythrin	Ms anti-CD28 Phycoerythrin
Anti-CD25 (Rat)	PC61	200-526-M73 100 µg	200-502-N82 500 µg	200-508-M73 100 µg		
Anti-CD27 (Mouse)	O323	200-326-N65 500 µL	200-302-N65 500 µL	200-308-N65 500 µL		
Anti-CD28 (Mouse)	CD28.2	200-326-N66 500 µL	200-302-N66 500 µL	200-308-N66 500 µL		
Anti-CD40 (Mouse)	5C3	200-326-N67 500 µL	200-302-N67 500 µL	200-308-N67 500 µL	Ms anti-CD40 Allophycocyanin	Ms anti-CD40 Fluorescein
Anti-CD45 (Mouse)	HI30	200-326-N68 500 µL	200-302-N68 500 µL	200-308-N68 500 µL		
Anti-CD45.1 (Rat)	A20	200-526-N85 100 µg	200-502-N85 500 µg	200-508-N85 100 µg		
Anti-CD45.2 (Mouse)	104	200-326-N86 100 µg	200-302-N86 500 µg	200-308-N86 200 µg		
Anti-CD45R (B220) (Rat)	RA3-6B2	200-526-N84 100 µg	200-502-N84 500 µg	200-508-N84 200 µg	Rt anti-CD45R (B220) Allophycocyanin	Ms anti-CD45RA Phycoerythrin
Anti-CD45RA (Mouse)	HI100	200-326-N70 500 µL	200-302-N70 500 µL	200-308-N70 500 µL		
Anti-CD45RO (Mouse)	UCHL1	200-326-N71 500 µL	200-302-N71 500 µL	200-308-N71 500 µL		
Anti-CD62L (Mouse)	DREG-56	200-326-N72 500 µL	200-302-N72 500 µL	200-308-N72 500 µL	Ms anti-CD69 Allophycocyanin	Ms anti-CD8 APC
Anti-CD69 (Mouse)	FN50	200-326-N73 500 µL	200-302-N73 500 µL	200-308-N73 500 µL		
Anti-CD80 (Armenian Hamster)	16-10A1	200-B26-N89 100 µg	200-B02-N89 500 µg	200-B08-N89 100 µg		
Anti-CD80 (Mouse)	2D10	200-326-N74 500 µL	200-302-N74 500 µL	200-308-N74 500 µL		
Anti-CD86 (Mouse)	IT2.2	200-326-N75 500 µL		200-308-N75 500 µL		
Anti-CD154 (CD40L) (Mouse)	Clone 24-31	200-326-N76 500 µL	200-302-N76 500 µL	200-308-N76 500 µL	Arm Hm anti-CD80 Phycoerythrin	Ms anti-CD154 (CD40L) Fluorescein
Anti-CD154(CD0L) (Armenian Hamster)	MR1	200-B26-N91 100 µg		200-B08-N91 200 µg		

# Antibodies to Cytokines and Growth Factors

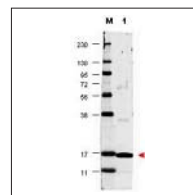
ANTIBODY NAME	HOST	APPLICATIONS	CATALOG #	SIZE
Anti-ADAM10	Rb	IHC, IF, WB, E	200-401-949	100 µg
Anti-Angiopoietin 1	Rb	IHC, WB, E	100-401-403	200 µL
Anti-Angiopoietin 2	Rb	WB, E	100-401-402	200 µL
Anti-Bovine CCL2	Rb	WB, E	200-401-B60	100 µg
Anti-Bovine IL-1F5	Rb	WB, E	201-401-B77	100 µg
Anti-Bovine IL-21	Rb	WB, E	200-401-B53	100 µg
Anti-Bovine VEGF-A	Rb	WB, E	200-401-B74	100 µg
Anti-Cripto-1 / TDGF1	Rb	ELISA, WB, IHC	600-401-997	100 µg
Anti-CXCL10	Rb	WB, E	201-401-B84	100 µg
Anti-DELTA-1	Rb	WB, E	600-401-858	100 µg
Anti-DELTA-4	Rb	IHC, WB, E	600-401-696	100 µg
Anti-EGFR	Rb	ELISA, WB, IHC, IP	100-401-149	250 µl
Anti-EGFR Phospho pY1197	Rb	ELISA, WB, IHC	600-401-928	100 µg
Anti-ESTROGEN RECEPTOR	Rb Mab	IHC, WB, E	900-C01-B35	100 µL
Anti-Fetuin (2-HS Glycoprotein)	Gt	WB, E	200-101-456	500 µg
Anti-GM-CSF	Rb	WB, E	210-401-314	100 µg
Anti-Human IL-1 $\alpha$	Rb	IHC, WB, E	209-401-302	1 mg
Anti-Human IL-1 $\alpha$	Rb	WB, E	209-401-B73	100 µg
Anti-Human IL-1 Receptor Antagonist	Rb	WB, E	209-401-303	1 mg
Anti-Human IL-1 Receptor Type I (IL-1RI)	Rb	WB, IP, E	109-401-304	1 mL
Anti-Human IL-1 Receptor Type II (IL-1RII)	Rb	WB, IP, E	109-401-305	1 mL
Anti-Human IL-6	Rb	WB, E	209-401-310	100 µg
Anti-Human IL-8	Rb	IHC, WB, IP, E	109-401-311	1 mL
Anti-Human IL-17A	Rb	WB, E	209-401-B32	100 µg
Anti-Human IL-17A	Ms	ELISA, WB, FC	209-301-B32	100 µg
Anti-Human IL-17A Biotin Conjugated	Ms	ELISA, WB, FC	209-306-B32	100 µg
Anti-Human IL-17E	Ms	ELISA, WB, FC	209-301-C58	100 µg



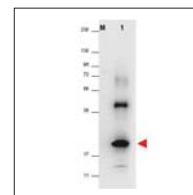
Rb anti-GM-CSF



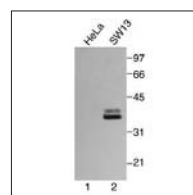
Rb anti-IL-1RII



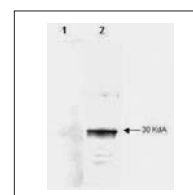
Rb anti-IL 17A



Rb anti-IL 32A



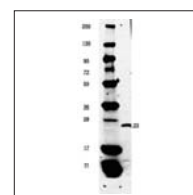
Rb anti-Sprouty



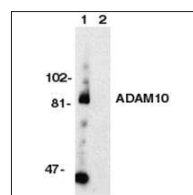
Ms anti-LEFTY A



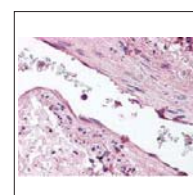
Ch anti-MIF



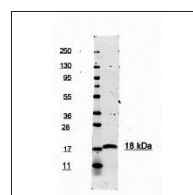
Rb anti-EBI-3



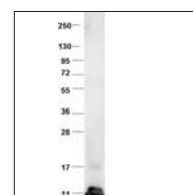
Rb anti-ADAM10



Rb anti-Angiopoietin 1



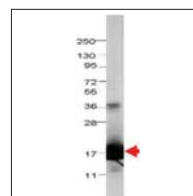
Rb anti-IL-B



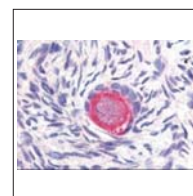
Rb anti-CCL2

# Antibodies to Cytokines and Growth Factors

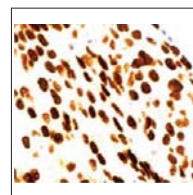
ANTIBODY NAME	HOST	APPLICATIONS	CATALOG #	SIZE
Anti-Human IL-17E Biotin Conjugated	Ms	ELISA, WB, FC	209-306-C58	100 µg
Anti-Human IL-17F	Rb	WB, E	209-401-B31	100 µg
Anti-Human IL-17F	Ms	ELISA, WB, IHC	209-301-B31	100 µg
Anti-Human IL-17F Biotin Conjugated	Ms	ELISA, WB, IHC	209-306-B31	100 µg
Anti-Human IL-32A	Rb	WB, N, E	209-401-B49	100 µg
Anti-Human IL-33	Rb	WB, N, E	209-401-B50	100 µg
Anti-Human Sprouty-2	Rb	WB, E	600-401-E68	100 µg
Anti-Human TNF $\alpha$	Rb	WB, E	109-401-306	1 mL
Anti-Human TNF- $\alpha$	Rb	WB, E	209-401-306	1 mg
Anti-Human TNF p55 Receptor (sTNFRp55)	Rb	WB, E	109-401-308	1 mL
Anti-Human TNF p55 Receptor (sTNFRp55)	Rb	WB, E	209-401-308	1 mg
Anti-IL-7 Receptor alpha chain	Rb	IHC, WB, E	600-401-A48	100 µg
Anti-IL-7 Receptor alpha chain pY449	Rb	IHC, WB, E	600-401-A49	100 µg
Anti-IL-10	Rb	IHC, WB, E	109-401-312	1 mL
Anti-LEFTY A	Ms	WB, E	200-301-279	100 µg
Anti-Macrophage migration inhibitory factor (MIF)	Ch	WB, E	200-901-457	500 µg
Anti-MIP-1 $\alpha$	Rb	WB, E	109-401-315	1 mL
Anti-Mouse EBI-3	Rb	WB, E	210-401-B66	100 µg
Anti-Mouse IL-17A	Rt	ELISA, WB, FC	210-501-B32	100 µg
Anti-Mouse IL-1 $\beta$	Rb	WB, E	210-401-319	100 µg
Anti-Mouse IL-1 $\beta$ Biotin Conjugated	Rb	WB, E	210-406-319	100 µg
Anti-Mouse IL-1 $\beta$ Peroxidase Conjugated	Rb	WB, E	210-403-319	100 µg
Anti-Mouse IL-17F	Rb	WB, E	210-401-B31	100 µg
Anti-Mouse IL-27/p28	Rb	WB, E	210-401-B54	100 µg
Anti-Mouse IL-27/p28	Rt	ELISA, WB, FC	210-501-B54	100 µg
Anti-Mouse IL-27/p28 Biotin Conjugated	Rb	WB, E	210-406-B54	100 µg
Anti-Mouse IL-27/p28 Peroxidase Conjugated	Rb	IHC, WB, E	210-403-B54	100 µg



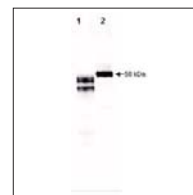
Rb anti-IL-1F5



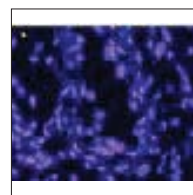
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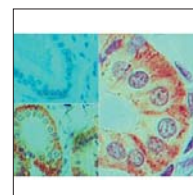
Rb anti-ER



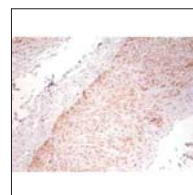
Rb anti-Fetuin



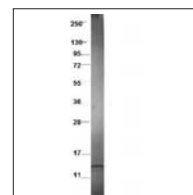
Rb anti-IL-1 beta



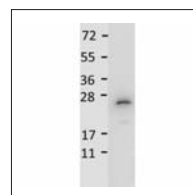
Ms anti-Human IL 17F



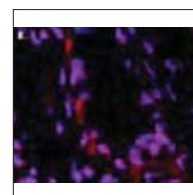
Rb anti-Human TNF  $\alpha$



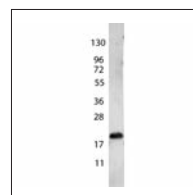
Rb anti-CCL3L1



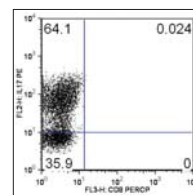
Rb anti-Mouse IL 27 p28



Rb anti-Mouse IL-18



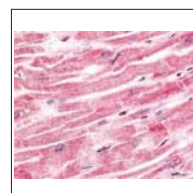
Rb anti-VEGF



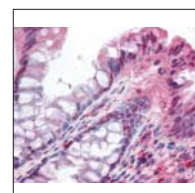
Ms anti-Human IL 17F

# Antibodies to Cytokines and Growth Factors

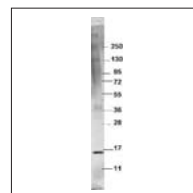
ANTIBODY NAME	HOST	APPLICATIONS	CATALOG #	SIZE
Anti-Mouse IL-35 / EBI-3	Rt	ELISA, WB, FC	210-501-B66	100 µg
Anti-Mouse Leptin	Rb	IHC, WB, E	210-401-320	1 mg
Anti-Mouse TNF-α	Rb	WB, E	210-401-321	1 mg
Anti-NOXO1	Rb	IHC, WB, E	600-401-899	100 µg
Anti-Rat IL-17A	Rb	WB, E	212-401-B32	100 µg
Anti-Sprouty-4	Rb	IHC, WB, E	600-401-697	100 µg
Anti-Swine CCL3L1	Rb	WB, E	200-401-B61	100 µg
Anti-Swine IL-13	Rb	WB, E	200-401-B55	100 µg
Anti-Swine TNFα	Rb	IHC, WB, E	214-401-306	100 µg
Anti-TGF beta 1	Rb	IF, WB, E	600-401-432	100 µg
Anti-TRAF2	Rb	IF, WB, E	600-401-B27	100 µg
Anti-VEGF	Rb	ELISA, WB	209-401-B99	100 µg
Anti-ZBP-89	Rb	WB, E	100-401-685	100 µL



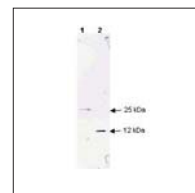
Rb anti-Sprouty-4



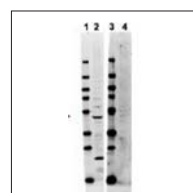
Rb anti-NOXO1



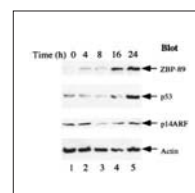
Rb anti-Swine TNFα



Rb anti-TGF beta 1



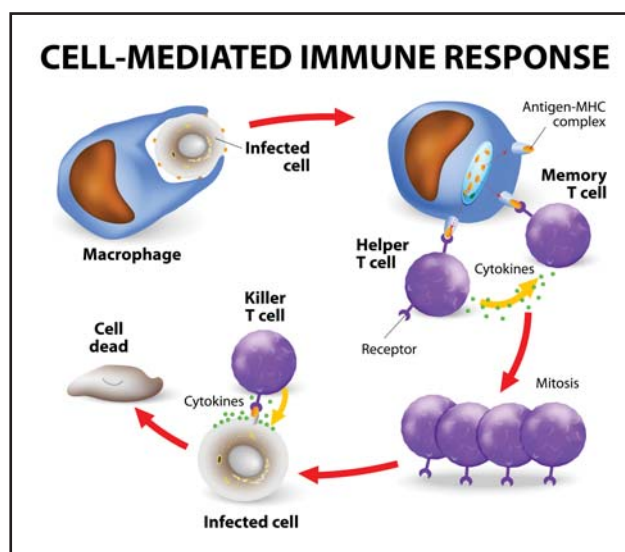
Rb anti-TRAF2



Rb anti-ZBP-89

## Cytokines & Growth Factors

Acute and chronic inflammatory conditions are critical aspects in a plethora of disease states. These diseases range from viral infections to atherosclerosis and cancer, as well as neurological diseases (Alzheimer's and Parkinson's), metabolic conditions (obesity and Type 2 Diabetes) and autoimmune disorders (Arthritis and IBS). Pro-inflammatory cytokines are proteins that are produced by many cell types and have a variety of effects in local tissues and systemic body systems. IL-6, TNF alpha, IFN gamma, and IL-1 beta are some of the most commonly studied pro-inflammatory cytokines in the research market. These cytokines are added to cell culture systems to study the effects of inflammatory conditions on a cellular level while antibodies that detect these cytokines are frequently used as markers for inflammatory responses or chronically inflamed states on a cellular and/or whole body level. Rockland's antibodies to cytokines and growth factors are ideally suited for applications that include ELISA, flow cytometry, western blotting and cytokine neutralization and are available in bulk sizes.





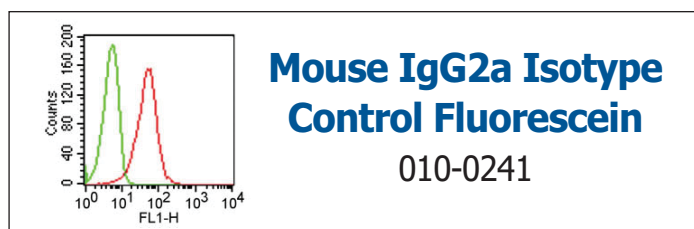
# Cytokines and Growth Factors

PROTEIN	CATALOG #	SIZE
BDNF Human Recombinant Protein	009-001-C27	10 µg
EBI-3 Human Recombinant Protein	009-001-B66	20 µg
EBI-3 Mouse Recombinant Protein	010-001-B66	10 µg
GM-CSF Human Recombinant Protein	009-001-314	20 µg
GM-CSF Mouse Recombinant Protein	010-001-314	20 µg
IL-1β Human Recombinant Protein	009-001-301	10 µg
IL-1β Mouse Recombinant Protein	010-001-319	10 µg
IL-2 Human Recombinant Protein	009-001-B95	50 µg
IL-3 Recombinant Human Protein	009-001-B92	10 µg
IL-4 Human Recombinant Protein	009-001-B93	20 µg
IL-6 Human Recombinant Protein	009-001-310	20 µg
IL-6 Mouse Recombinant Protein	010-001-310	10 µg
IL-7 Human Recombinant Protein	009-001-B94	10 µg
IL-9 Recombinant Human Protein	009-001-B96	10 µg
IL-17A Human Recombinant Protein	009-001-B32	25 µg
IL-17A Mouse Recombinant Protein	010-001-B32	25 µg
IL-17A Rat Recombinant Protein	012-001-B32	25 µg
IL-17F Human Recombinant Protein	009-001-B31	25 µg
IL-17F Mouse Recombinant Protein	010-001-B31	25 µg
IL-17F Rat Recombinant Protein	012-001-B31	25 µg
IL-27/p28 Mouse Recombinant Protein	010-001-B54	10 µg
IL-29 Human Recombinant Protein	009-001-C24	20 µg

PROTEIN	CATALOG #	SIZE
IL-32A Human Recombinant Protein	009-001-B49	10 µg
IL-33 Human Recombinant Protein	009-001-B50	10 µg
Leptin Human Recombinant Protein	009-001-320	1000 µg
Leptin Mouse Recombinant Protein	010-001-320	1000 µg
LOW ENDOTOXIN CONTROL MOUSE IgG	010-001-298	500 µg
LOW ENDOTOXIN CONTROL RABBIT IgG	011-001-297	500 µg
MCP-1 Human Recombinant Protein	009-001-B60	20 µg
MIP-1β Human Recombinant Protein	009-001-B85	10 µg
MIP-1β Mouse Recombinant Protein	010-001-B85	10 µg
MIP-1α Human Recombinant Protein	009-001-315	20 µg
MIP-1α Mouse Recombinant Protein	010-001-315	10 µg
MIP-3β Human Recombinant Protein	009-001-C21	20 µg
MIP-3β Mouse Recombinant Protein	010-001-C21	20 µg
MIP-3α Human Recombinant Protein	009-001-B51	20 µg
MIP-3α Mouse Recombinant Protein	010-001-B51	20 µg
RANKL Human Recombinant Protein	009-001-C22	10 µg
RANKL Mouse Recombinant Protein	010-001-C22	10 µg
RANTES Mouse Recombinant Protein	010-001-C20	100 µg
TNF-α Human Recombinant Protein	009-001-306	50 µg
TNF-α Mouse Recombinant Protein	010-001-321	20 µg
VEGF-121 Human Recombinant Protein	009-001-C23	10 µg
VEGF-165 Human Recombinant Protein	009-001-B99	10 µg

# Isotype Controls

In order to obtain accurate quantitative data from flow cytometry experiments, it is critical to reliably confirm that the antibodies being used specifically recognize the intended target protein. This can be done by both optimizing the antibody dilution to be used and using the appropriate staining controls. Rockland's Isotype Controls are reagents especially design to help you determining staining background and non-specific antibody binding in flow cytometry assays. Isotype controls are available both as unconjugated or FITC-, PE- and APC-conjugated antibodies from different species including mouse, human and rat. Validated applications for Isotype Controls include ELISA, FLISA, WB, IF & FC.



	Unconjugated	Fluorescein	Phycoerythrin	Biotin
Armenian Hamster IgG Isotype Control	019-001-002 1 mg			
Human IgG Isotype Control	009-0102 10 mg	009-0202 1 mg	009-008-002 0.5 mL	009-0602 1 mg
Human IgM Isotype Control	009-0107-0001 1 mg	009-0207 1 mg	009-008-007 0.25 mL	009-0607 1 mg
Mouse IgG 1 Isotype Control	010-0140 1 mg	010-0240 100 µg	010-0840 1 mL	010-0640 1 mg
Mouse IgG 2a Isotype Control	010-0141 1 mg	010-0241 100 µg	010-0841 1 mL	010-0641 100 µg
Mouse IgG 2b Isotype Control	010-0142 1 mg	010-0642 100 µg	010-0842 1 mL	010-0642 100 µg
Mouse IgG 3 Isotype Control	010-0143 1 mg	010-0243 100 µg	010-0843 1 mL	010-0643 100 µg
Rabbit IgG Isotype Control	011-0102-0010 10 mg	011-0202 1 mg		011-0602 1 mg
Rat IgG 1 Isotype Control	012-001-040 500 µg	012-002-040 50 µg	012-008-040 500 µg	012-006-040 50 µg
Rat IgG 2a Isotype Control	012-001-041 500 µg	012-002-041 50 µg	012-008-041 500 µg	012-006-041 50 µg
Rat IgG 2b Isotype Control	012-001-042 500 µg	012-002-042 50 µg	012-008-042 500 µg	012-006-042 50 µg
Rat IgG 2c Isotype Control	012-001-P03 500 µg	012-002-P03 50 µg	012-008-P03 500 µg	012-006-P03 50 µg

# Blocking Buffers & Substrates

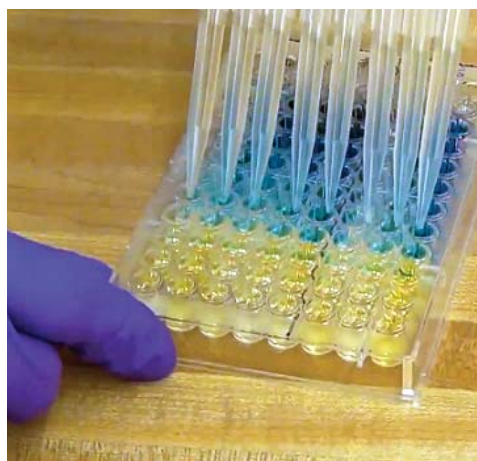
Blocking solutions are used to reduce nonspecific binding. Because there is no universal blocking reagent, Rockland offers a selection of blocking reagents so that the investigators can choose the most appropriate reagent for a specific assay. Optimizing a blocking buffer requires monitoring of both background (negative control) and signal strength (positive control) to compare blockers. Choose the blocker that produces the highest signal to noise ratio.



PRODUCT	PRODUCT SIZE	APPLICATION	CATALOG #
Bovine Serum Albumin	10 g	ELISA, FLISA, WB, IHC, IF, IP, FC	BSA-10
Bovine Serum Albumin 30% Solution	500 mL	ELISA, FLISA, WB, IHC, IF, IP, FC	BSA-30
Blocking Buffer for Fluorescent Western Blotting	500 mL	WB	MB-070
ELISA Blocking Buffer	100 mL	ELISA	MB-064-0100
Goat Serum (Normal Blocking Grade)	10 mL	ELISA, FLISA, WB, IHC, IF, IP, FC	B304
Mouse Serum (Normal Blocking Grade)	10mL	ELISA, FLISA, WB, IHC, IF, IP, FC	B308

## Additional benefits of blocking include:

- Prevent nonspecific binding
- Block nonspecific binding to adsorbed proteins
- Stabilize adsorbed protein for better interactions
- Reduce ELISA background signal



## TMB ELISA Peroxidase Substrate

<b>Catalog #</b>	<b>TMBE-100</b>	<b>size 100 mL</b>
	<b>TMBE-1000</b>	<b>size 1 L</b>
	<b>TMBE-8000</b>	<b>size 8 L</b>

### Application: ELISA

TMB ELISA Peroxidase Substrate (3, 3', 5, 5' - Tetramethylbenzidine) is a chromogenic substrate used to visualize antibody reactivity in ELISA experiments. In the presence of peroxidases, TMB can act as an electron donor for the conversion of peroxides to water, changing the color of solution to a blue color equivalent to the degree of reactivity. This reaction can be halted with acid to change the TMB to yellow.

# Choosing Secondary Antibodies

Rockland produces all of its secondary antibodies in their laboratories which are located near Philadelphia, PA. We have a vast knowledge base for optimizing these reagents for Western Blotting, Immunohistochemistry, Immunofluorescent Microscopy, Flow Cytometry and ELISA. Oftentimes secondary antibodies recognize only one host species of primary antibody or alternatively recognize the entire IgG and any fragments thereof. Choosing the appropriate secondary probe or sufficiently designing the experimental system can overcome this disparity. When choosing a new antibody, keep the following considerations in mind:

1. Determine the host species of the primary antibody and select an appropriate host species for the secondary antibody.
2. Consider cross-reactivity or specificity issues of the secondary antibody as well as the detection or purification method.
3. Finally, consider requirements of the supplied secondary and the supplied state of the reagent.

	Host	Unconjugated	Fluorescein	DyLight™ 800	Biotin	Peroxidase
<b>Anti-Chicken IgG (H&amp;L)</b>	Rabbit	603-4102 10 mg	603-4202 1.5 mg		603-4602 1.5 mg	603-4302 1.5 mg
<b>Anti-Dog IgG (H&amp;L)</b>	Rabbit	604-4102 10 mg	604-4202 2.0 mg		604-4602 2.0 mg	604-4302 2.0 mg
<b>Anti-Goat IgG (H&amp;L)</b>	Donkey	605-701-002 2.0 mg	605-702-002 2.0 mg	605-742-002 100 µg	605-706-002 2.0 mg	605-703-002 2.0 mg
<b>Anti-Goat IgG (H&amp;L)</b> (Min X Ch GP Ham Hs Ms Rb & Rt Serum Proteins)	Donkey	605-701-125 1.0 mg	605-702-125 1.0 mg	605-745-125 100 µg	605-706-125 1.0 mg	605-703-125 1.0 mg
<b>Anti-Goat IgG (H&amp;L)</b>	Rabbit	605-4102 2.0 mg	605-4202 2.0 mg	605-445-002 100 µg	605-4602 2.0 mg	605-4302 2.0 mg
<b>Anti-Goat IgG Fc, fragment specific</b>	Rabbit	605-4103 2.0 mg	605-4203 2.0 mg	605-445-003 100 µg	605-4603 2.0 mg	605-4303 2.0 mg
<b>Anti-Guinea Pig (H&amp;L)</b> (Min X Bv Ch Gt Ham Hs Hu Ms Rb Rt & Sh Serum Proteins)	Goat	606-101-129 1.0 mg	606-102-129 1.0 mg	606-145-129 100 µg	606-106-129 1.0 mg	606-103-129 1.0 mg
<b>Anti-Hamster IgG (H&amp;L) Golden Syrian &amp; Armenian</b> (Min X Ms and Rt Serum Proteins)	Goat	620-101-440 1.0 mg	620-102-440 1.0 mg	606-145-129 100 µg	620-106-440 1.0 mg	620-103-440 1.0 mg
<b>Anti-Horse IgG (H&amp;L)</b>	Rabbit	608-4102 2.0 mg	608-4202 2.0 mg	608-445-002 100 µg	608-4602 2.0 mg	608-4302 2.0 mg
<b>Anti-Human IgG (H&amp;L)</b> (Min X Bv Ch Gt GP Ham Hs Ms Rb Rt & Sh Serum Proteins)	Donkey	609-701-123 1.0 mg	609-702-123 1.0 mg		609-706-123 1.0 mg	609-703-123 1.0 mg
<b>Anti-Human IgG (H&amp;L)</b>	Goat	609-1102 2.0 mg	609-1202 2.0 mg	609-145-002 100 µg	609-1602 2.0 mg	609-1302 2.0 mg

# Secondary Antibodies

	Host	Unconjugated	Fluorescein	DyLight™ 800	Biotin	Peroxidase
<b>Anti-Human IgG (H&amp;L)</b> <small>(Min X Bv Ch Gt GP Ham Hs Ms Rb Rt &amp; Sh Serum Proteins)</small>	Goat	609-101-123 1.0 mg	609-102-123 1.0 mg	609-145-123 100 µg	609-106-123 1.0 mg	609-103-123 1.0 mg
<b>Anti-Human κ</b>	Goat	609-1110 1.0 mg	609-1210 1.0 mg		609-1610 1.0 mg	609-1310 1.0 mg
<b>Anti-Human IgG, Fc fragment specific</b>	Goat	609-1103 5.0 mg	609-1203 2.0 mg		609-1603 2.0 mg	609-1303 2.0 mg
<b>Anti-Human IgA (alpha chain)</b>	Goat	609-1106 1.0 mg	609-1206 1.0 mg	609-145-006 100 µg	609-1606 1.0 mg	609-1306 1.0 mg
<b>Anti-Human IgM (mu chain)</b>	Goat	609-1107 1.0 mg	609-1207 1.0 mg	609-145-007 100 µg	609-1607 1.0 mg	609-1307 1.0 mg
<b>Anti-Human IgG IgA IgM (H&amp;L)</b>	Goat	609-101-130 2.0 mg	609-102-130 2.0 mg	609-145-130 100 µg	609-106-130 2.0 mg	609-103-130 2.0 mg
<b>Anti-Monkey IgG (gamma chain)</b>	Goat	617-101-012 1.0 mg	617-102-012 1.0 mg	617-145-012 100 µg	617-106-012 1.0 mg	617-103-012 1.0 mg
<b>Anti-Monkey IgA (alpha chain)</b>	Goat	617-101-006 1.0 mg	617-102-006 1.0 mg		617-106-006 1.0 mg	617-103-006 1.0 m
<b>Anti-Monkey IgM (mu chain)</b>	Goat	617-101-007 1.0 mg	617-102-007 1.0 mg	617-145-007 100 µg	617-106-007 1.0 mg	617-103-007 1.0 mg
<b>Anti-Mouse IgG (H&amp;L)</b>	Donkey	610-701-002 2.0 mg	610-702-002 2.0 mg	610-745-002 100 µg	610-706-002 2.0 mg	610-703-002 2.0 mg
<b>Anti-Mouse IgG (H&amp;L)</b> <small>(Min X Bv Ch Gt GP Ham Hs Hu Rb Rt &amp; Sh Serum Proteins)</small>	Donkey	610-701-124 1.0 mg	610-702-124 1.0 mg	610-745-124 100 µg	610-706-124 1.0 mg	610-703-124 1.0 mg
<b>Anti-Mouse IgG (H&amp;L)</b>	Goat	610-1102 2.0 mg	610-1202 2.0 mg	610-145-002 100 µg	610-1602 2.0 mg	610-1302 2.0 mg
<b>Anti-Mouse IgG (H&amp;L)</b> <small>(Min X Bv Ch Gt GP Ham Hs Hu Rb Rt &amp; Sh Serum Proteins)</small>	Goat	610-101-121 1.0 mg	610-102-121 1.0 mg	610-145-121 100 µg	610-106-121 1.0 mg	610-103-121 1.0 mg
<b>Anti-Mouse IgG, Fc fragment specific</b>	Goat	610-1103 2.0 mg	610-1203 2.0 mg	610-145-003 100 µg	610-1603 2.0 mg	610-1303 2.0 mg
<b>Anti-Mouse IgM (mu chain)</b>	Goat	610-1107 2.0 mg	610-1207 2.0 mg	610-145-007 100 µg	610-1607 2.0 mg	610-1307 1.0 mg
<b>Anti-Mouse IgG IgA IgM (H&amp;L)</b>	Goat	610-101-130 2.0 mg	610-102-130 2.0 mg		610-106-130 2.0 mg	610-103-130 2.0 mg
<b>Anti-Mouse IgG (H&amp;L)</b>	Rabbit	610-4102 2.0 mg	610-4202 2.0 mg	610-445-002 100 µg	610-4602 2.0 mg	610-4302 2.0 mg
<b>Anti-Mouse IgG (H&amp;L)</b> <small>(Min X Human)</small>	Rabbit	610-4120 2.0 mg	610-4220 2.0 mg	610-445-020 100 µg	610-4620 2.0 mg	610-4320 2.0 mg

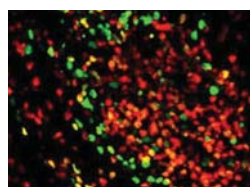
# Secondary Antibodies

	Host	Unconjugated	Fluorescein	DyLight™ 800	Biotin	Peroxidase
<b>Anti-Mouse IgG<sub>1</sub></b> (gamma 1 chain)	Rabbit	610-4140 1.0 mg	610-4240 1.0 mg	610-445-040 100 µg	610-4640 1.0 mg	610-4340 1.0 mg
<b>Anti-Mouse IgG<sub>2a</sub></b> (gamma 2a chain)	Rabbit	610-4141 1.0 mg	610-4241 1.0 mg	610-445-041 100 µg	610-4641 1.0 mg	610-4341 1.0 mg
<b>Anti-Mouse IgG<sub>2b</sub></b> (Gamma 2b chain)	Rabbit	610-4142 1.0 mg	610-4242 1.0 mg	610-445-042 100 µg	610-4642 1.0 mg	610-4342 1.0 mg
<b>Anti-Mouse IgG<sub>3</sub></b> (Gamma 3 chain)	Rabbit	610-4143 1.0 mg	610-4243 1.0 mg	610-445-043 100 µg	610-4643 1.0 mg	610-4343 1.0 mg
<b>Anti-Mouse IgG Fc, fragment specific</b>	Rabbit	610-4103 2.0 mg	610-4203 1.5 mg	610-445-003 100 µg	610-4603 1.5 mg	610-4303 1.5 mg
<b>Anti-Mouse IgG</b> (H&L)	Sheep	610-601-002 2.0 mg	610-602-002 2.0 mg	610-645-002 100 µg	610-606-002 2.0 mg	610-603-002 2.0 mg
<b>Anti-Rabbit IgG</b> (H&L) <small>(Min X Bv Ch Gt GP Ham Hs Hu Ms Rt &amp; Sh Serum Proteins)</small>	Donkey	611-701-127 1.0 mg	611-702-127 1.0 mg	611-732-127 100 µg	611-706-127 1.0 mg	611-703-127 1.0 mg
<b>Anti-Rabbit IgG</b> (H&L)	Goat	611-1102 2.0 mg	611-1202 2.0 mg	611-145-002 100 µg	611-1602 2.0 mg	611-1302 2.0 mg
<b>Anti-Rabbit IgG</b> (H&L) <small>(Min X Bv Ch Gt GP Hs Hu Ms Rt &amp; Sh Serum Proteins)</small>	Goat	611-101-122 1.0 mg	611-102-122 1.0 mg	611-145-122 100 µg	611-106-122 1.0 mg	611-103-122 1.0 mg
<b>Anti-Rabbit IgG, Fc fragment specific</b>	Goat	611-1103 2.0 mg	611-1203 2.0 mg	611-145-003 100 µg	611-1203 2.0 mg	611-1303 2.0 mg
<b>Anti-Rat IgG</b> (H&L) <small>(Min X Bv Ch Gt GP Ham Hs Hu Ms Rb &amp; Sh Serum Proteins)</small>	Donkey	612-701-120 1.0 mg	612-702-120 1.0 mg		612-706-120 1.0 mg	612-703-120 1.0 mg
<b>Anti-Rat IgG</b> (H&L)	Goat	612-1102 2.0 mg	612-1202 2.0 mg	612-145-002 100 µg	612-1602 2.0 mg	612-1302 2.0 mg
<b>Anti-Rat IgG</b> (H&L) <small>(Min X Bv Ch Gt GP Ham Hs Hu Ms Rb &amp; Sh Serum Proteins)</small>	Goat	612-101-120 1.0 mg	612-102-120 1.0 mg	612-145-120 100 µg	612-106-120 1.0 mg	612-103-120 1.0 mg
<b>Anti-Rat IgG</b> (H&L)	Rabbit	612-4102 2.0 mg	612-4202 2.0 mg	612-445-002 100 µg	612-4602 2.0 mg	612-4302 2.0 mg
<b>Anti-Sheep IgG</b> (H&L)	Rabbit	613-4102 2.0 mg	613-4202 2.0 mg	612-445-002 100 µg	613-4602 2.0 mg	613-4302 2.0 mg
<b>Anti-Sheep IgG</b> (H&L)	Donkey	613-7102 2.0 mg	613-7202 2.0 mg		613-7602 2.0 mg	613-7302 2.0 mg
<b>Anti-Sheep IgG</b> (H&L) <small>(Min X Ch GP Ham Hs Hu Ms Rb &amp; Rt Serum Proteins)</small>	Donkey	613-701-168 1.0 mg	613-702-168 1.0 mg	613-745-168 100 µg	613-706-168 1.0 mg	613-703-168 1.0 mg
<b>Anti-Swine IgG</b> (H&L)	Rabbit	614-4102 10 mg	614-4202 2.0 mg	614-445-002 100 µg	614-4602 2.0 mg	614-4302 2.0 mg

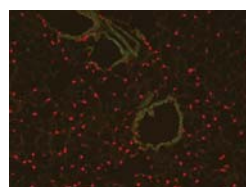
# GFP, RFP & mCherry

Anti-GFP, Anti-RFP and Anti-mCherry Antibodies are intended for use in immunological assays including ELISA, western blotting, immunofluorescence, immunohistochemistry, and fluorescence activated cell sorting (FACS).

Fluorescent proteins such as Green Fluorescent Protein (GFP) and Discosoma Red Fluorescent Protein (RFP) and its variants are widely used in research practice. These commonly serve as a markers for gene expression and protein localization. RFP was isolated from sea anemone *Discosoma* sp. mushroom and GFP is originated from *Aequorea victoria* jellyfish. As RFP and GFP share only 19% identity, therefore, in general, anti-GFP antibodies do not recognize RFP proteins and vice versa. Structurally, RFP is similar to GFP in terms of its overall fold (a  $\beta$ -can) and chromophore-formation chemistry. However, RFP undergoes an additional step in the chromophore maturation and obligates tetrameric structure. Rockland RFP polyclonal antibodies are raised against whole RFP protein of wild type, the polyclonal antibodies are expected to recognize all RFP variant forms.



Immunohistochemistry  
Rabbit anti-GFP antibody  
600-401-215



Immunofluorescence Microscopy  
Rabbit Anti-RFP antibody  
600-401-379

	Unconjugated	Fluorescein	Biotin	Peroxidase
Anti-GFP (Rabbit)	600-401-215 100 $\mu$ g	600-402-215 100 $\mu$ g	600-406-215 100 $\mu$ g	600-403-215 100 $\mu$ g
Anti-RFP (Rabbit)	600-401-379 100 $\mu$ g	600-402-379 100 $\mu$ g	600-406-379 100 $\mu$ g	600-403-379 100 $\mu$ g

## Anti-mCherry Antibody

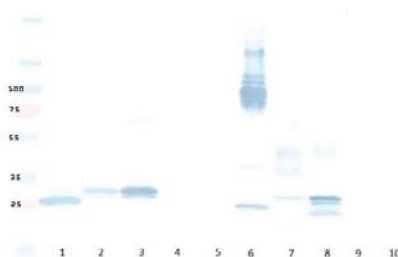
Catalog # 600-401-P16

size 100  $\mu$ L

**Application:** ELISA, IF Microscopy, Western Blot, Immunohistochemistry

Anti-mCherry was prepared from monospecific antiserum by immunoaffinity chromatography using Red Fluorescent Protein (*Discosoma*) coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities.

Polyclonal anti-mCherry is designed to detect mCherry, RFP, and its variants. Anti-mCherry (*Discosoma* sp.) are intended for use in immunological assays including ELISA, western blotting, immunofluorescence, and fluorescence activated cell sorting (FACS).



Blocking Buffers • Cancer Research • Epitope Tags • Monoclonal Antibody Production • NFkB Pathway • Phospho Specific Antibodies • Secondary Antibodies

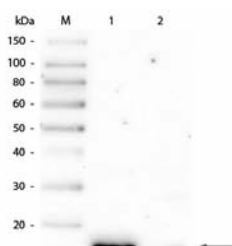
## FLAG™ TrueBlot™ Kit

88-8887-383

### Clear Detection of Blotted Target Bands

TrueBlot® Immunoprecipitation and Western Blot Kit for DYKDDDDK (FLAG™) Epitope Tag

The TrueBlot® Immunoprecipitation and Western Blot Kit for DYKDDDDK (FLAG™) Epitope Tag contains the critical supporting reagents, buffers, and substrates for IP and WB of DYKDDDDK (FLAG™) tagged proteins. Using TrueBlot will allow easy enrichment and clear monitoring of FLAG™ tagged proteins.

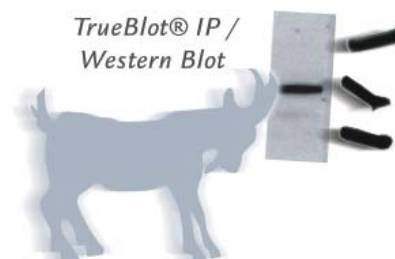


#### Kit Components:

1. Mouse IgG TrueBlot ULTRA: 50 µL
2. TrueBlot Enhancer Solution: 25 mL
3. TrueBlot Blocker: 10 g
4. TrueBlot Assay Buffer: 30 mL 20X
5. TrueBlot Substrate A: 12.5 mL
6. TrueBlot Substrate B: 12.5 mL
7. Anti-Mouse Ig IP Beads: 2.5 mL Binds 0.4 mg Ig/mL beads
8. Antibody for the detection of FLAG™ conjugated proteins (MOUSE) Monoclonal Antibody: 100 µg
9. Western Blot Incubation Tray (small)

## TrueBlot® IP / Western Blot

Immunoprecipitation protocols and Western Blots provide highly specific results, yet often suffer from heavy/light chain blotting, contamination, and ongoing interference. TrueBlot® products solve nearly all of these problems through increased sensitivity, less background noise, and enhanced accuracy. Available in several options, to complete IP/Western Blot kits from goat, mouse, rabbit or sheep. Also available are highly optimized agarose bead conjugates for Immunoprecipitation.



PRODUCT NAME	CATALOG#	SIZE
Goat TrueBlot® Western Blot Kit	88-8884-31	1 Kit
Rabbit TrueBlot® Western Blot Kit	88-8886-31	1 Kit
Mouse TrueBlot® Western Blot Kit	88-8887-31	1 Kit

PRODUCT NAME	CATALOG#	SIZE
Goat TrueBlot®: Anti-Goat IgG HRP	18-8814-33	200 µL
Rabbit TrueBlot®: Anti-Rabbit IgG HRP	18-8816-33	200 µL
Mouse TrueBlot® ULTRA: Anti-Mouse Ig HRP	18-8817-33	200 µL
Goat TrueBlot® Set (with IP beads)	88-1488-31	1 Set
Rabbit TrueBlot® Set (with IP beads)	88-1688-31	1 Set
Mouse TrueBlot® Set (with IP beads)	88-7788-31	1 Set