Order online now!

www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for 611-144-002

Rabbit IgG (H&L) Antibody DyLight™ 680 Conjugated

Overview

Description:	Goat Anti-Rabbit IgG (H&L) Antibody DyLight™ 680 Conjugated - 611-144-002
Item No.:	611-144-002
Size:	100 µg
Applications:	Dot Blot, WB, IF, IP
Reactivity:	Rabbit
Host Species:	Goat

Product Details

Background:	Anti-Rabbit IgG Antibody DyLight™680 generated in goat detects rabbit IgG. Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. Immunoglobulin G binds to viruses, bacteria, as well as fungi and facilitates their destruction or neutralization via agglutination (and thereby immobilizing them), activation of the compliment cascade, and opsonization for phagocytosis. The whole IgG molecule possesses both the F(c) region, recognized by high-affinity Fc receptor proteins, as well as the F (ab) region possessing the epitope-recognition site. Both heavy and light chains of the antibody molecule are present. Secondary Antibodies are available in a variety of formats and conjugate types. When choosing a secondary antibody product, consideration must be given to species and immunoglobulin specificity, conjugate type, fragment and chain specificity, level of cross-reactivity, and host-species source and fragment composition. This Anti-Rabbit IgG (H&L) is conjugated to DyLight™680.
Synonyms:	Goat anti-Rabbit IgG Antibody DyLight™680 Conjugation, Goat anti-Rabbit IgG DyLight™ 680 Conjugated Antibody
Host Species:	Goat
Specificity:	IgG (H&L)
Conjugate:	DyLight™ 680
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	2.8
Specific Activity:	2.8

Target Details

Reactivity:	Rabbit
Immunogen:	Rabbit IgG whole molecule
Purity/Specificity:	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Rabbit IgG coupled to agarose beads followed by conjugation to fluorochrome and extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum, Rabbit IgG and Rabbit Serum. This antibody will react with heavy chains of Rabbit IgG and with light chains of most Rabbit immunoglobulins.
Relevant Links:	• 611-144-002 SDS

Application Details

Tested Applications:	Dot Blot, WB
Suggested Applications:	IF, IP (Based on references)
Application Note:	Anti-Rabbit IgG Antibody DyLight™680 has been tested by dot blot and western blot and 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

Formulation

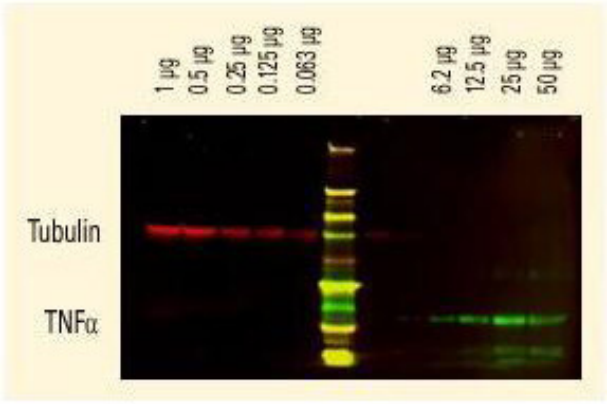
Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

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



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-TNFa was detected using a DyLight™ 800 conjugate. The image was captured using the Odyssey® Infrared Imaging System developed by LI-COR.

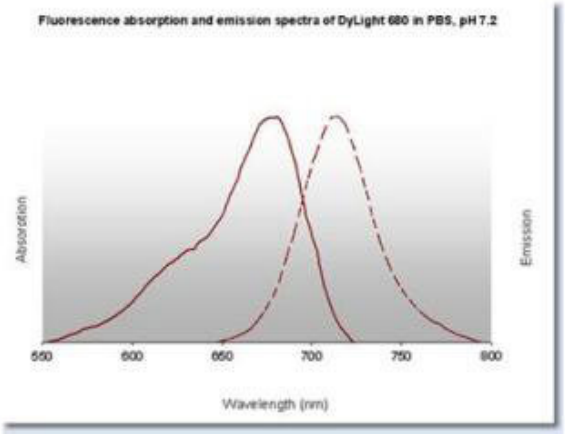


Diagram
DyLight™ 680 Fluorescence Spectra.

Diagram
Properties of DyLight™ Fluorescent Dyes.

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

References

- Koivulehto E et al. AAT/SERPINA1 Pi*Z variant linked to gestational length and preterm birth prevention via AAT in mice. *Nat Commun.* (2026)
- Lin Z et al. Temporal photoproximity labeling of ligand-activated EGFR neighborhoods using MultiMap. *Nat Chem Biol.* (2026)
- Leonard SP et al. Synthetic overlapping genes stabilize genetic systems. *mBio.* (2026)
- Chuecos MA et al. Cytosine base editing of LPA in transgenic mice averts large deletions. *Mol Ther.* (2026)
- Song X et al. Excessive MYC Orchestrates Macrophages induced Chromatin Remodeling to Sustain Micropapillary-Patterned Malignancy in Lung Adenocarcinoma. *Adv Sci (Weinh).* (2025)
- Hui R et al. Disrupted betaine metabolism drives Th17 cell differentiation, mediating methamphetamine-induced depressive behaviors in male mice. *J Neuroinflammation.* (2025)
- SantaCruz-Calvo S et al. A unique inflammaging profile generated by T cells from people with obesity is metformin resistant. *Geroscience.* (2025)
- Lin Z et al. Multiscale photocatalytic proximity labeling reveals cell surface neighbors on and between cells. *Science.* (2024)
- Ortiz-Vega N et al. Regulation of Proteostasis by Sleep in Drosophila Models of Alzheimer's Disease. *Life Sci Alliance.* (2024)
- Qu L et al. Downregulation of PRKCI inhibits osteosarcoma cell growth by inactivating the Akt/mTOR signaling pathway. *Front Oncol.* (2024)
- Li L et al. Microglia Autophagy Mediated by TMEM166 Promotes Ischemic Stroke Secondary to Carotid Artery Stenosis. *Aging Dis.* (2024)
- Szewczyk B et al. FUS ALS neurons activate major stress pathways and reduce translation as an early protective mechanism against neurodegeneration. *Cell Rep.* (2023)

- Cantacorps L et al. Gut-derived peptide hormone receptor expression in the developing mouse hypothalamus. *PLoS One.* (2023)
- Lopez J et al. The ribosomal S6 kinase 2 (RSK2)-SPRED2 complex regulates the phosphorylation of RSK substrates and MAPK signaling. *J Biol Chem.* (2023)
- Cuevas-Navarro A et al. RAS-dependent RAF-MAPK hyperactivation by pathogenic RIT1 is a therapeutic target in Noonan syndrome-associated cardiac hypertrophy. *Sci Adv.* (2023)
- Nitschke L et al. Alternative splicing mediates the compensatory upregulation of MBNL2 upon MBNL1 loss-of-function. *Nucleic Acids Res.* (2023)
- Tao, X et al. Phenylbutyrate modulates polyamine acetylase and ameliorates Snyder-Robinson syndrome in a Drosophila model and patient cells. *Jci Insight* (2022)
- Orengo, JP et al. Reduction of mutant ATXN1 rescues premature death in a conditional SCA1 mouse model. *JCI Insight* (2022)
- Alegre-Zurano L et al. Cannabidiol decreases motivation for cocaine in a behavioral economics paradigm but does not prevent incubation of craving in mice. *Biomed Pharmacother.* (2022)
- García-Baos A et al. Effects of fast-acting antidepressant drugs on a postpartum depression mice model. *Biomed Pharmacother.* (2022)
- Doerfler AM et al. LPA disruption with AAV-CRISPR potently lowers plasma apo(a) in transgenic mouse model: A proof-of-concept study. *Mol Ther Methods Clin Dev.* (2022)
- Castro-Zavala A et al. Cocaine-seeking behaviour is differentially expressed in male and female mice exposed to maternal separation and is associated with alterations in AMPA receptors subunits in the medial prefrontal cortex. *Prog Neuropsychopharmacol Biol Psychiatry.* (2021)
- De Giorgi M et al. Targeting the Apoa1 locus for liver-directed gene therapy. *Mol Ther Methods Clin Dev.* (2021)
- Cuevas-Navarro A et al. The RAS GTPase RIT1 compromises mitotic fidelity through spindle assembly checkpoint suppression. *Curr Biol.* (2021)
- Garcia-Baos A et al. Cannabidiol attenuates cognitive deficits and neuroinflammation induced by early alcohol exposure in a mice model. *Biomed Pharmacother.* (2021)
- Nitschke L et al. Modulation of ATXN1 S776 phosphorylation reveals the importance of allele-specific targeting in SCA1. *JCS Insight.* (2021)
- Navarro R et al. TGF-β-induced IGFBP-3 is a key paracrine factor from activated pericytes that promotes colorectal cancer cell migration and invasion. *Mol Oncol.* (2020)
- Asthana V et al. Development of a Novel Class of Self-Assembling dsRNA Cancer Therapeutics: a Proof of Concept Investigation. *Mol Ther Oncolytics.* (2020)
- Li R et al. RNF115 deletion inhibits autophagosome maturation and growth of gastric cancer *Cell Death Dis.* (2020)
- Ma X et al. Nicotinamide mononucleotide adenylyltransferase uses its NAD+ substrate-binding site to chaperone phosphorylated Tau. *Elife.* (2020)
- Woods BL. et al. Interplay of septin amphipathic helices in sensing membrane-curvature and filament bundling. *bioRxiv* (2020)

- Cantacorps L et al. Prenatal and postnatal alcohol exposure increases vulnerability to cocaine addiction in adult mice. *Br J Pharmacol.* (2020)
- Alegre-Zurano L et al. Behavioural and molecular effects of cannabidiolic acid in mice. *Life Sci.* (2020)
- Bailetti AA et al. Enhancer of Polycomb and the Tip60 complex repress hematological tumor initiation by negatively regulating JAK/STAT pathway activity. *Dis Model Mech.* (2019)
- Hong D et al. Deletion of TMEM268 inhibits growth of gastric cancer cells by downregulating the ITGB4 signaling pathway. *Cell Death Differ.* (2019)
- Jarrett KE et al. Somatic Editing of Ldlr With Adeno-Associated Viral-CRISPR Is an Efficient Tool for Atherosclerosis Research. *Arteriosclr Thromb Vasc Biol.* (2018)
- Lin et al. Liver-specific deletion of Eva1a/Tmem166 aggravates acute liver injury by impairing autophagy. *Cell Death & Disease* (2018)
- Haapalainen et al. Expression of CPPED1 in human trophoblasts is associated with timing of term birth. *Journal of Cellular and Molecular Medicine* (2018)
- Jarrett et al. Somatic genome editing with CRISPR/Cas9 generates and corrects a metabolic disease. *Scientific Reports* (2017)
- Li et al. Deletion of Pdcd5 in mice led to the deficiency of placenta development and embryonic lethality. *Cell Death & Disease* (2017)
- Xia et al. Knockout of MARCH2 inhibits the growth of HCT116 colon cancer cells by inducing endoplasmic reticulum stress. *Cell Death & Disease* (2017)
- Moscoso-Castro M et al. Cognitive impairments associated with alterations in synaptic proteins induced by the genetic loss of adenosine A2A receptors in mice. *Neuropharmacology.* (2017)
- Xia D et al. MARCH2 regulates autophagy by promoting CFTR ubiquitination and degradation and PIK3CA-AKT-MTOR signaling. *Autophagy.* (2016)
- Shen et al. EMC6/TMEM93 suppresses glioblastoma proliferation by modulating autophagy. *Cell Death & Disease* (2016)
- Li M et al. EVA1A/TMEM166 regulates embryonic neurogenesis by autophagy. *Stem Cell Reports.* (2016)
- Palacino J et al. SMN2 splice modulators enhance U1–pre-mRNA association and rescue SMA mice. *Nat Chem Biol.* (2015)
- Wang Z et al. PHF23 (plant homeodomain finger protein 23) negatively regulates cell autophagy by promoting ubiquitination and degradation of E3 ligase LRSAM1. *Autophagy.* (2014)
- Li Y et al. A novel ER-localized transmembrane protein, EMC6, interacts with RAB5A and regulates cell autophagy. *Autophagy.* (2013)

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.