

Product datasheet

DyLight® 550 Conjugation Kit (Fast) - Lightning-Link® ab201800

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Overview

Product name

DyLight® 550 Conjugation Kit (Fast) - Lightning-Link®

Product overview

DyLight® 550 Fast Conjugation Kit (ab201800) uses a simple and quick process to conjugate an antibody to DyLight® 550. It can also be used to conjugate other proteins or peptides.

This product is manufactured by Expedeon, an Abcam company. See the table below to match Abcam kit size against Expedeon product code.

To conjugate an antibody to DyLight® 550 using this kit:

- add modifier to antibody and incubate for 15 mins
- add quencher and incubate for 5 mins

The conjugated antibody can be used immediately in WB, ELISA, IHC etc. No further purification is required and 100% of the antibody is recovered for use.

Learn about buffer compatibility below; for incompatible buffers and low antibody concentrations, use our rapid [antibody purification and concentration kits](#). Use the [FAQ](#) to learn more about the technology, or about conjugating other proteins and peptides to DyLight® 550.

Custom size conjugation kits up to 100 mg are available on demand. Please contact us to discuss your requirements.

Notes

This product is manufactured by Expedeon, an Abcam company, and was previously called Lightning-Link® Rapid DyLight® 550 Labeling Kit. 323-0015 is the same as the 1 mg size. 323-0010 is the same as the 3 x 100 ug size. 323-0030 is the same as the 3 x 10 ug size. 323-0005 is the same as the 100 ug size.

Amount and volume of antibody for conjugation to DyLight® 550

<i>Kit size</i>	<i>Recommended amount of antibody¹</i>	<i>Maximum amount of antibody</i>	<i>Maximum antibody volume²</i>
3 x 10 µg	3 x 10 µg	3 x 20 µg	3 x 10 µL
100 µg	1 x 100 µg	1 x 200 µg	1 x 100 µL

3 x 100 µg	3 x 100 µg	3 x 200 µg	3 x 100 µL
1 mg	1 x 1 mg	1 x 2 mg	1 x 1 mL

¹ Using the maximum amount of antibody may result in less labelling per antibody.

² Ideal antibody concentration is 1mg/ml. 0.5 - 1 mg/ml can be used if the maximum antibody volume is not exceeded. Antibodies > 2mg/ml or < 0.5 mg/ml should be diluted /concentrated.

Buffer Requirements for Conjugation

Buffer should be pH 6.5-8.5.

Compatible buffer constituents

If a concentration is shown, then the constituent should be no more than the concentration shown. If several constituents are close to the limit of acceptable concentration, then this can inhibit conjugation.

50mM / 0.6% Tris ¹	0.1% BSA ²	50% glycerol
0.1% sodium azide	PBS	Potassium phosphate
Sodium chloride	HEPES	Sucrose
Sodium citrate	EDTA	Trehalose

¹ Tris buffered saline is almost always ≤ 50 mM / 0.6%

² BSA can also interfere with the use of the conjugated antibody in tissue staining.

Incompatible buffer constituents

Thiomerosal	Proclin	Glycine
Arginine	Glutathione	DTT

If a constituent of the buffer containing your antibody or protein is not listed above, please check the [FAQ](#) or [contact us](#).

Only purified antibodies are suitable for use, ie. where other proteins, peptides, or amino acids are not present: antibodies in ascites fluid, serum or hybridoma culture media are incompatible.

Storing and handling conjugation kits

Lyophilized Lightning-Link[®] components are hygroscopic.

Kits are intentionally shipped at ambient temperature with silica gel to avoid exposure to moisture. Upon receipt, store the kit frozen and protect from moisture. Before opening the outer container, allow the lyophilized components to reach room temperature to minimize condensation.

DyLight[®] is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries.

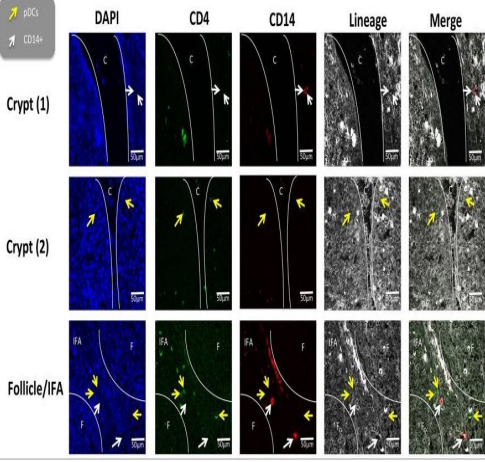
Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 mg	100 µg	3 x 10 µg	3 x 100 µg
ab274016 - Dylight® 550 Conjugation Mix	1 x 1mg	1 x 100µg	3 x 10µg	3 x 100µg
ab273994 - Modifier reagent	1 x 200µl	1 x 200µl	1 x 200µl	1 x 200µl
ab273995 - Quencher reagent	1 x 200µl	1 x 200µl	1 x 200µl	1 x 200µl

Images

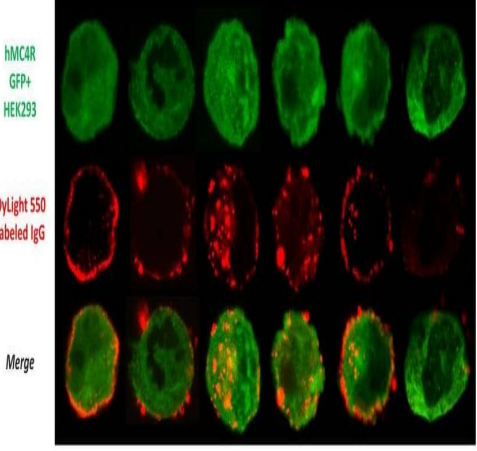


Conjugation - DyLight[®]550 Conjugation Kit (Fast) - Lightning-Link[®]; (ab201800)

Image from Soldevila et al., Front Immunol., 9:1800; doi: 10.3389/fimmu.2018.01800. Reproduced under the Creative Commons license <https://creativecommons.org/licenses/by/4.0>

Soldevila, Ferran, et al used DyLight[®] 550 Conjugation Kit (Fast) - Lightning-Link[®] (ab201800) as part of examining myeloid cell populations in the porcine palatine tonsil. They used the kit to conjugate DyLight[®] 550 to anti-CD14 IgG for use in confocal microscopy.

In situ localization of the CD14+ cells and plasmacytoid dendritic cells in porcine palatine tonsil. CD14+ cells and pDCs were localized by confocal microscopy following ethanol fixation of tonsil slices. The areas assessed included the follicle (F), the interfollicular region (IFA), the crypt (C). The tissue was stained using panel 1 antibodies; white arrow CD14+ cells and yellow arrow pDCs. Images are representative of at least two images from each section, from three different pigs. Objective used: (A) 63× oil immersion. Scale bars as shown.

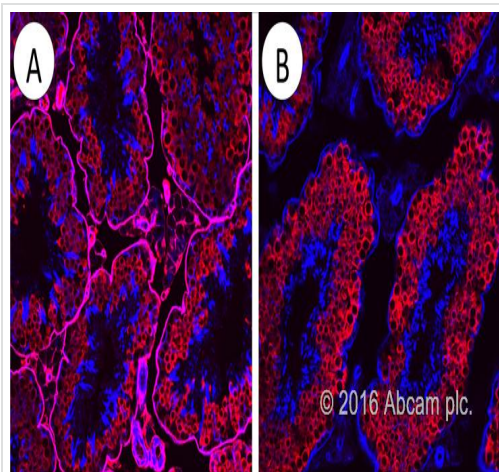


Conjugation - DyLight[®] 550 Conjugation Kit (Fast) - Lightning-Link[®] (ab201800)

Image from Lucas et al., Transl Psychiatry, 9(1):87; doi: 10.1038/s41398-019-0422-9. Reproduced under the Creative Commons license <https://creativecommons.org/licenses/by/4.0/>

Lucas, Nicolas, et al used DyLight[®] 550 Conjugation Kit (Fast) - Lightning-Link[®] (ab201800) as part of examining the function of α-melanocyte-stimulating hormone (α-MSH) in Melanocortin 4 receptor (MC4R) signaling in normal and pathological conditions. They used the kit to conjugate DyLight[®] 550 to anti-α-MSH IgG for use in confocal microscopy.

Representative images of hMC4R GFP+ HEK 293 cells (green) 30 min after application of DyLight 550[®]-labeled (red) α-MSH affinity-purified IgG from eating disorder (anorexia nervosa, *n* = 9; bulimia nervosa, *n* = 7; binge eating disorder, *n* = 7), obese (*n* = 10), and Ctrl (*n* = 9) preincubated or not with α-MSH.



Staining for mouse-on-mouse immunofluorescence

Image courtesy of an Abreview submitted by Bryan Niedenberger.

Adult mouse testes were fixed with 4% paraformaldehyde. Tissue was embedded in O.C.T. and frozen. 5 micron sections were cut and transferred to slides. Sections were permeabilized with 0.1% Triton X-100 in PBS, and blocked with 3% BSA in 0.1% Triton X-100 + PBS.

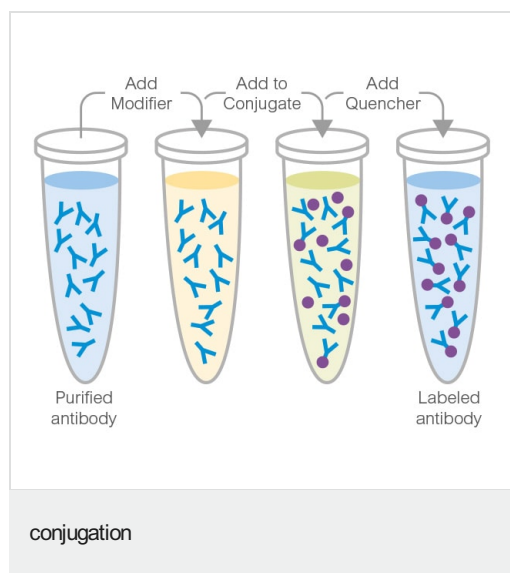
Sections were then incubated with either:

(A) Mouse Anti-DDX4 ([ab27591](#)) at a 1:500 dilution for 1 h at RT. Sections were then washed 3X with 0.1% Triton X-100 in PBS and Donkey Anti-Mouse 555 ([ab150110](#)) applied at a 1:500 dilution.

(B) Mouse Anti-DDX4 ([ab27591](#)) labeled with Dylight 550 Fast Conjugation Kit ([ab201800](#)). Sections were incubated with labeled antibody at 1:100 dilution for 1 h at RT. Sections were then washed 3X with 0.1% Triton X-100 in PBS and mounted.

DDX4 is shown in red. Phalloidin, which stains F-actin is shown in blue.

See [Abreview](#).



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