

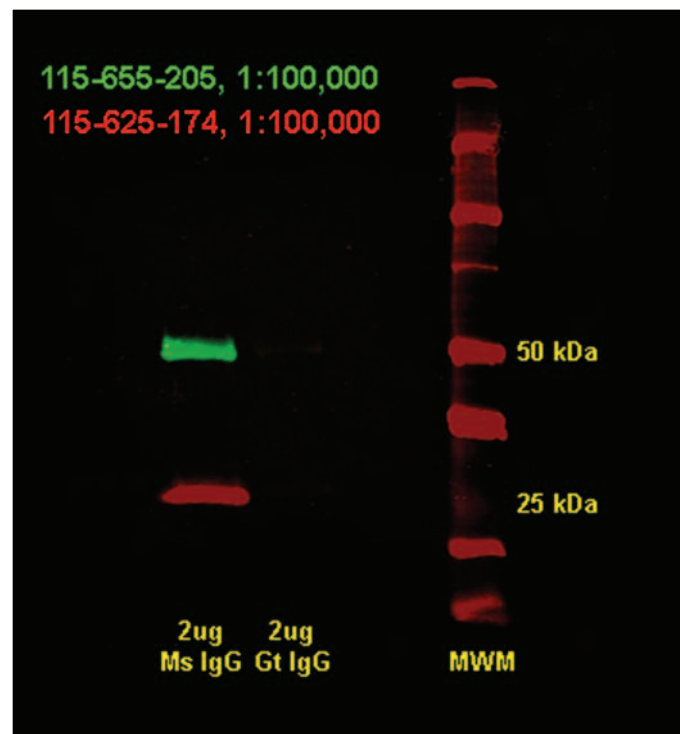
## Specializing in Secondary Antibodies and Conjugates

# Alexa Fluor® 680 and Alexa Fluor® 790 Conjugates for Far-red and Infrared Detection on Western Blots

Antibodies conjugated with far-red- and Infrared-emitting dyes are more sensitive than dyes emitting visible light due to low fluorescence quenching of the conjugates, high extinction coefficients of the dyes, and low background autofluorescence. The increased brightness allows for a wider range of immunofluorescence detection and imaging modalities. Far-red and Infrared dye conjugates can be used for higher sensitivity Western blots, quantitative Western blots, in-gel Westerns, microWestern arrays, in-cell Western arrays, on-cell Western arrays, tissue section imaging, and other techniques that require the brightest dyes.

**Figures 1.** Double immunofluorescence staining on a Western blot using Alexa Fluor® 680 far-red dye and Alexa Fluor® 790 infra-red dye. Two micrograms of mouse IgG and goat IgG (background control) were reduced and denatured with  $\beta$ -mercaptoethanol and SDS. The heavy and light chains were separated by electrophoresis in SDS-PAGE, transferred to nitrocellulose, and double labeled with a 1:100,000 dilution of Alexa Fluor® 790-goat anti-mouse IgG, Fc $\gamma$  Subclass 1 specific (min X Hu, Bov, Rb Sr Prot, 115-655-205) (green) to detect heavy chains and a 1:100,000 dilution of Alexa Fluor® 680-goat anti-mouse IgG, light chain specific (min X Bov, Gt, Hrs, Hu, Rb, Rat, Shp Ig, 115-625-174) (red) from Jackson ImmunoResearch to detect light chains. Fluorescence was imaged in a LiCor Odyssey imager. Goat IgG was used as a background control.

Note the faint bands of goat IgG heavy and light chains attesting to the extreme brightness of the dyes even at a dilution of 1:100,000.



Jackson ImmunoResearch now offers the largest selection of Alexa Fluor® 680 and Alexa Fluor® 790 dyes conjugated with signal-enhancing primary antibodies, secondary antibodies, streptavidin, and purified IgG controls for use in Western blots (see Figure 1) and other techniques requiring high sensitivity. The secondary antibodies are adsorbed to eliminate cross-reactions with others species and with other immunoglobulin classes for multiple labeling.

Streptavidin and Antibody Description	Alexa Fluor® 680 A=684, E=702		Alexa Fluor® 790 A=792, E=803	
	Size (mg)	Catalog Number	Size (mg)	Catalog Number
Streptavidin	0.5	016-620-084	0.5	016-650-084
Donkey Anti-Chicken IgY†(IgG)(H+L) ML* (min X Bov, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat, Shp Sr Prot)	0.5	703-625-155	0.5	703-655-155
Donkey Anti-Goat IgG (H+L)◆ ML* (min X Ck, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat Sr Prot)	0.5	705-625-147	0.5	705-655-147
Monoclonal Mouse Anti-Goat IgG, Light Chain Specific◆* ML* (min X Hrs, Hu, Ms, Rb, Rat Ig)	0.3	205-622-176	0.3	205-652-176
Donkey Anti-Guinea Pig IgG (H+L) ML* (min X Bov, Ck, Gt, Sy Hms, Hrs, Hu, Ms, Rb, Rat, Shp Sr Prot)	0.5	706-625-148	0.5	706-655-148
Goat Anti-Armenian Hamster IgG (H+L) (min X Bov, Hu, Ms, Rb, Rat Sr Prot)	0.3	127-625-160	0.3	127-655-160
Donkey Anti-Human IgG (H+L) ML* (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Ms, Rb, Rat, Shp Sr Prot)	0.5	709-625-149	0.5	709-655-149
Goat Anti-Human IgG, Fcγ fragment specific ML* (min X Bov, Hrs, Ms Sr Prot)	0.5	109-625-098	0.5	109-655-098
Goat Anti-Human IgM, Fc5μ fragment specific ML* (min X Bov Sr Prot)	0.5	109-625-129	0.5	109-655-129
Donkey Anti-Mouse IgG (H+L) ML* (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Rb, Shp Sr Prot)	0.5	715-625-150	0.5	715-655-150
Donkey Anti-Mouse IgG (H+L) ML* (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Rb, Rat, Shp Sr Prot)	0.3	715-625-151	0.3	715-655-151
Goat Anti-Mouse IgG (H+L) ML* (min X Hu, Bov, Hrs, Rb, Sw Sr Prot)	0.5	115-625-146	0.5	115-655-146
Goat Anti-Mouse IgG (H+L) ML* (min X Rat, Hu, Bov, Hrs, Rb Sr Prot)	0.3	115-625-166	0.3	115-655-166
Goat Anti-Mouse IgG Fcγ fragment specific ML* (min X Hu, Bov, Hrs Sr Prot)	0.5	115-625-071	0.5	115-655-071
Goat Anti-Mouse IgM, μ chain specific ML* (min X Hu, Bov, Hrs Sr Prot)	0.5	115-625-075	0.5	115-655-075
Goat Anti-Mouse IgG, Fcγ subclass 1 specific ML* (min X Hu, Bov, Rb Sr Prot)	0.3	115-625-205	0.3	115-655-205
Goat Anti-Mouse IgG, Fcγ subclass 2a specific ML* (min X Hu, Bov, Rb Sr Prot)	0.3	115-625-206	0.3	115-655-206
Goat Anti-Mouse IgG, Fcγ subclass 2b specific ML* (min X Hu, Bov, Rb Sr Prot)	0.3	115-625-207	0.3	115-655-207
Goat Anti-Mouse IgG, Fcγ subclass 3 specific ML* (min X Hu, Bov, Rb Sr Prot)	0.3	115-625-209	0.3	115-655-209
Goat Anti-Mouse IgG, Light Chain Specific* ML* (min X Bov, Gt, Hrs, Hu, Rb, Shp Ig)	0.3	115-625-174	0.3	115-655-174
Donkey Anti-Rabbit IgG (H+L) ML* (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rat, Shp Sr Prot)	0.5	711-625-152	0.5	711-655-152
Goat Anti-Rabbit IgG (H+L) ML* (min X Hu, Ms, Rat Sr Prot)	0.5	111-625-144	0.5	111-655-144
Monoclonal Mouse Anti-Rabbit IgG, Light Chain Specific* ML* (min X Bov, Gt, Ar Hms, Hrs, Hu, Ms, Rat, Shp Ig)	0.3	211-622-171	0.3	211-652-171
Donkey Anti-Rat IgG (H+L) ML* (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Rb, Shp Sr Prot)	0.5	712-625-150	0.5	712-655-150
Donkey Anti-Rat IgG (H+L)** ML* (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rb, Shp Sr Prot)	0.3	712-625-153	0.3	712-655-153
Goat Anti-Rat IgG (H+L) ML* (min X Hu, Bov, Hrs, Rb Sr Prot)	0.5	112-625-143	0.5	112-655-143
Goat Anti-Rat IgG (H+L)** ML* (min X Hu, Bov, Hrs, Ms, Rb, Sr Prot)	0.3	112-625-167	0.3	112-655-167
Goat Anti-Rat IgG, Fcγ fragment specific ML* (min X Hu, Bov, Hrs Sr Prot)	0.5	112-625-071	0.5	112-655-071
Goat Anti-Rat IgM, μ chain specific ML* (min X Hu, Bov, Hrs Sr Prot)	0.5	112-625-075	0.5	112-655-075
Goat Anti-Rat IgG, Light Chain Specific* ML* (min X Bov, Gt, Hrs, Hu, Ms, Rb, Shp Ig)	0.3	112-625-175	0.3	112-655-175
Donkey Anti-Sheep IgG (H+L)◆ ML* (min X Ck, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat Sr Prot)	0.5	713-625-147	0.5	713-655-147
Monoclonal Mouse Anti-Sheep IgG, Light Chain Specific◆* ML* (min X Bov, Hrs, Hu, Ms, Rb, Rat Ig)	0.3	213-622-177	0.3	213-652-177
Monoclonal Mouse Anti-Fluorescein	0.3	200-622-037	0.3	200-652-037
Monoclonal Mouse Anti-Digoxin	0.3	200-622-156	0.3	200-652-156
Monoclonal Mouse Anti-Biotin	0.3	200-622-211	0.3	200-652-211
Goat Anti-Horseradish Peroxidase	0.5	123-625-021	0.5	123-655-021

**Controls**

ChromPure Donkey IgG, whole molecule	0.5	017-620-003	0.5	017-650-003
ChromPure Goat IgG, whole molecule	0.5	005-620-003	0.5	005-650-003
ChromPure Mouse IgG, whole molecule	0.5	015-620-003	0.5	015-650-003

\* Anti-Light Chain Specific antibodies are used for Western blotting following immunoprecipitation (see Anti-IgG, Light Chain Specific for Western blotting at [www.jacksonimmuno.com](http://www.jacksonimmuno.com))

† IgY is the original designation for the IgG-like protein found in both serum and egg yolk.

\* ML= Multiple Labeling (see Multiple Labeling at [www.jacksonimmuno.com](http://www.jacksonimmuno.com) for an explanation).

◆ Warning: BSA and dry milk may contain IgG which will react with this antibody. Use of BSA and/or dry milk to block or dilute this antibody may increase background and/or reduce secondary antibody titer.

\*\* Caution: See "Selection and Location of Affinity-Purified Antibodies" at [www.jacksonimmuno.com](http://www.jacksonimmuno.com) before selecting an antibody adsorbed against a closely related species.



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