

# Product Overview

– prices on request –

## Biotin-, FITC Labeling and AP-, APC-, HRP-, RPE-, PE-CY5 Conjugation Kits

### High Quality Stable Liquid Substrates, Conjugates and Stabilizing Diluents

for Immunoassays, Flow Cytometry  
and Multiplexing Platforms such as Luminex™

### MOSS-Link™ Conjugation and Labeling Kits

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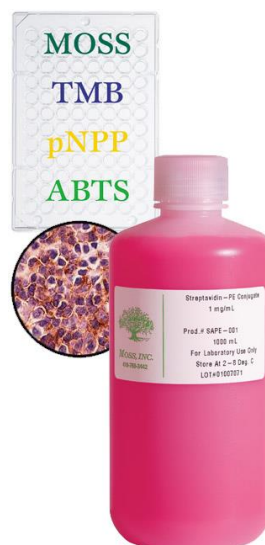
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# MOSS-Link™ Conjugation and Labeling Kits

Produce your own IgG conjugates with the MOSS Biotin Labeling or Conjugation Kits.

These kits utilize a **novel chemistry** to generate highly reproducible IgG conjugates with a simple procedure. The resulting conjugates are extremely stable and have a high activity. The incorporation of the conjugates is highly efficient so that a purification is usually not required. All kits are completely scalable for conjugates from 0.1 to 1 gram IgG per reaction. The performance of the products in the kits is guaranteed for a minimum of 12 months when stored as recommended.



The **MOSS-Link™ Biotin Labeling Kit** contains pre-measured active biotinylation reagent coated onto a tube surface (stored at room temperature), quenching reagent and BSA solution (both stored at 2-8 °C). It can be used with up to 10 mg/ml (1%) BSA as carrier protein and the Biotin incorporation is highly efficient.

The **FITC-Labeling Kit** works exactly the same way.

The **MOSS-Link™ RPE Conjugation Kit** is an excellent kit for preparing bright, stable and reproducible antibody-PE conjugates for bead based immunoassays (also for multiplexing platforms like Luminex®) and high quality reagents for flow cytometry. The kit of choice for preparing a corresponding antibody-HRP conjugate, used in immunochemistry assays, is the **MOSS-Link™ HRP Conjugation Kit**.

The reagents of the **MOSS-Link™ AP-, HRP and -RPE Conjugation Kits** (25X IgG activator, activated HRP or RPE (HRP-Z™/RPE-Z™), 1X quenching reagent) are supplied in liquid format. For the conjugation procedure 1X PBS, deionized water and desalting columns are additionally required. You can customize the AP:IgG, HRP:IgG or RPE:IgG ratio to create optimized conjugates for different applications. The conjugates have greatly improved stability vs Lightning-Link™ and other conjugation chemistries.

Each conjugation kit includes all reagents needed to conjugate the stated amount of IgG for HRP at a HRP:IgG ratio of 4:1 for AP at a AP:IgG ratio of 2:1 and for RPE/RPE-CY5 at a RPE/RPE-CY5:IgG ratio of 1:1. However, lower or higher ratios may give better results depending upon the antibody characteristics and the intended end-use. Conjugates for bead based immunoassay platforms may perform optimally at a different RPE:IgG molar ratio than conjugates used for flowcytometry, and conjugates for ELISA at a different HRP:IgG molar ratio than conjugates to be used for immunohistochemistry. You can choose and produce the desired conjugate:IgG ratio.

Cat. No.	Description	Quantity
AP-Link-AC	MOSS-Link AP Conjugation Kit	0.1 mg
AP-Link-CC	MOSS-Link AP Conjugation Kit	0.3 mg
AP-Link-AF	MOSS-Link AP Conjugation Kit	1.0 mg
AP-Link-AG	MOSS-Link AP Conjugation Kit	5.0 mg
AP-Link-AH	MOSS-Link AP Conjugation Kit	10.0 mg
APC-Link-CC	MOSS-Link APC Conjugation Kit	0.3 mg
APC-Link-AF	MOSS-Link APC Conjugation Kit	1.0 mg
APC-Link-AG	MOSS-Link APC Conjugation Kit	5.0 mg
APC-Link-AH	MOSS-Link APC Conjugation Kit	10.0 mg
BIO-Link-AD	MOSS-Link Biotin Labeling Kit	4 tubes x 0.05 mg
BIO-Link-CC	MOSS-Link Biotin Labeling Kit	3 tubes x 0.1 mg
BIO-Link-JC	MOSS-Link Biotin Labeling Kit	10 tubes x 0.1 mg
BIO-Link-AF	MOSS-Link Biotin Labeling Kit	1 tube x 1.0 mg
BIO-Link-AH	MOSS-Link Biotin Labeling Kit	1 x 10.0 mg
FITC-Link-CC	MOSS-Link FITC Labeling Kit	3 tubes x 0.3 mg
FITC-Link-AF	MOSS-Link FITC Labeling Kit	1.0 mg
FITC-Link-AG	MOSS-Link FITC Labeling Kit	5.0 mg
FITC-Link-AH	MOSS-Link FITC Labeling Kit	10.0 mg
HRP-Link-AD	MOSS-Link HRP Conjugation Kit	0.2 mg
HRP-Link-AF	MOSS-Link HRP Conjugation Kit	1.0 mg
HRP-Link-AG	MOSS-Link HRP Conjugation Kit	5.0 mg
HRP-Link-AH	MOSS-Link HRP Conjugation Kit	10.0 mg
PECY5-Link-CC	MOSS-Link PE-CY5 Conjugation Kit	0.3 mg
PECY5-Link-AF	MOSS-Link PE-CY5 Conjugation Kit	1.0 mg
PECY5-Link-AG	MOSS-Link PE-CY5 Conjugation Kit	5.0 mg
PECY5-Link-AH	MOSS-Link PE-CY5 Conjugation Kit	10.0 mg
RPE-Link-AD	MOSS-Link RPE Conjugation Kit	0.2 mg
RPE-Link-AF	MOSS-Link RPE Conjugation Kit	1.0 mg
RPE-Link-AG	MOSS-Link RPE Conjugation Kit	5.0 mg
RPE-Link-AH	MOSS-Link RPE Conjugation Kit	10.0 mg

Further quantities available. Please contact us for more information.

## Stable Enhanced Chemiluminescent HRP Substrate for ELISA and Western Blot

**Two component. Stable for 36 months at 2 - 8 °C.**

This chemiluminescent substrate is a highly sensitive two component reagent Part A (Enhanced Luminol Solution) and Part B (Stabilized Peroxidase Solution) for the quantitative detection of HRP bound to a **solid phase or in free solution**. The working solution is stable for 24 hours in the dark at room temperature.

### Cat. No.

ChemiHRP-100  
ChemiHRP-500  
ChemiHRP-1000

### Quantity

100 ml (50 ml Part A + 50 ml Part B)  
500 ml (250 ml Part A + 250 ml Part B)  
1000 ml (500 ml Part A + 500 ml Part B)

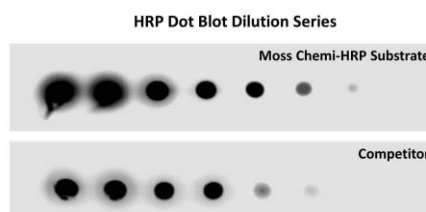
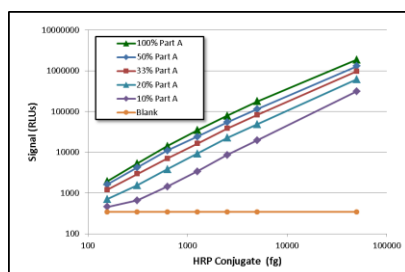
### Optional Component

ChemiHRP-DIL is a diluent that can be used to dilute Part A to adjust the signal strength to a level consistent with the specific sensitivity and dynamic range requirements of an assay.

ChemiHRP-Dil

1000 ml Part A Diluent

### Dilution of Luminol Part A with Diluent



## Stable Enhanced Chemiluminescent AP Substrate for ELISA and Western Blot

**One component. Stable for 12 months at 2 - 8 °C.**

This chemiluminescent substrate is a highly sensitive single component reagent for the quantitative detection of Alkaline Phosphatase bound to a **solid phase or in free solution**. The substrate yields a linear response with the concentrations of Alkaline Phosphatase commonly employed in immunological assays.

Optional diluents can be used to adjust the signal strength to a level consistent with the specific sensitivity and dynamic range requirements of an assay.

### Cat. No.

ChemiAP-RK100  
ChemiAP-RK500  
ChemiAP-RK1000  
ChemiAP-RKDil

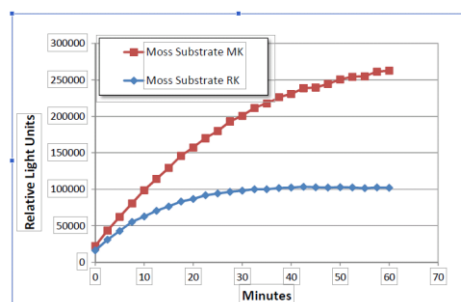
### Quantity

100 ml  
500 ml  
1000 ml  
1000 ml

ChemiAP-MK100  
ChemiAP-MK500  
ChemiAP-MK1000  
ChemiAP-MKDil

100 ml  
500 ml  
1000 ml  
1000 ml

### The difference between ChemiAP RK und MK Substrates



RK (Rapid Kinetic Substrate) has a strong initial activity and reaches 90 % of maximum signal after approximately 20 minutes.

MK (Maximum Kinetic Substrate), a more powerful substrate, has a higher initial reaction rate than RK and produces 90 % of maximum signal after approximately 45 minutes.

Both substrates will emit light for several hours.

# Stable Liquid substrates for HRP

## Soluble Substrates

Cat. No. Quantity

### TMB-HK (2.5 mMol/L)

**One component. Stable for 36 months at 2 - 8 °C. Non-toxic!**

TMBHK (High Kinetic TMB) achieves the highest Optical Density with colour development in as little as 1 minute! Incubate 2-15 minutes and stop with Hydrochloric or Sulfuric Acid to obtain a stable yellow colour.

Read at 450 nm. Applications include visual assays or assays that need high sensitivity in short incubation time.

TMBHK-100	100 ml
TMBHK-500	500 ml
TMBHK-1000	1000 ml

### TMB-US (2.08 mMol/L)

**One component. Stable for 36 months at 2 - 8 °C. Non-toxic!**

Ultra Sensitive TMB. Incubate 2-15 minutes and read the blue colour at 650 nm. Use of a stop solution produces a yellow end product that can be read at 450 nm. The yellow colour is stable for up to 2 hours!

TMBUS-100	100 ml
TMBUS-500	500 ml
TMBUS-1000	1000 ml

### TMB-E (1.25 mMol/L)

**One component. Stable for 36 months at 2 - 8 °C. Non-toxic!**

Suitable for most ELISA assays. Incubate 5-15 minutes and read the blue colour at 650 nm. For added sensitivity, adding a stop solution produces a yellow colour that can be read at 450 nm for up to 10-20 minutes after stopping.

TMBE-100	100 ml
TMBE-500	500 ml
TMBE-1000	1000 ml

### TMB-Diluents

**Optimization Buffer for TMB'S Non-toxic!**

Used for diluting TMB to achieve desired OD reading while maintaining stability.

TMBED-100	100 ml
TMBED-5000	500 ml
TMBED-1000	1000 ml
TMBUSD-100	100 ml
TMBUSD-5000	500 ml
TMBUSD-1000	1000 ml
TMBHKD-100	100 ml
TMBHKD-500	500 ml
TMBHKD-1000	1000 ml

### TMB-Stable Stop (1.56 mMol/L)

**One component. Stable for 36 months at 2 - 8 °C. Non-toxic!**

Same as TMB-US, but slower acting. Can be used for most ELISA assays for kinetic or endpoint reactions.

The yellow product is stable for at least 1 hour displaying less than a 1 % loss in absorbance.

TMBE-100S	100 ml
TMBE-500S	500 ml
TMBE-1000S	1000 ml

### ABTS (1.46 mMol/L)

**One component. Stable for 30 months at 2 - 8 °C. Non-toxic!**

ABTS is a soluble, safe, convenient and good overall performing substrate for ELISA. ABTS develops an intense blue-green colour measurable between 405 nm and 410 nm. It may be used for both kinetic and endpoint reactions.

ABTS-100	100 ml
ABTS-500	500 ml
ABTS-1000	1000 ml



## Insoluble Substrates

Cat. No. Quantity

### TMB-M (1.13 mMol/L)

**One component. Stable for 24 months at 2 - 8 °C. Non-toxic!**

A peroxidase substrate which produces a stable, insoluble aquamarine blue precipitate at the reaction site with little or no background. It is ideal for immunoblotting procedures and can significantly increase the detection limits of assays on a variety of membranes.

TMBM-100	100 ml
TMBM-500	500 ml
TMBM-1000	1000 ml

### TMB-H (1.25 mMol/L)

**One component. Stable for 36 months at 2 - 8 °C. Non-toxic!**

Same as TMBM, but additionally may be used for immunohistochemical procedures and *in situ* hybridization techniques.

TMBH-100	100 ml
TMBH-500	500 ml
TMBH-1000	1000 ml

### TMB-MX (1.13 mMol/L)

**One component. Stable for 24 months at 2 - 8 °C. Non-toxic!**

Recommended for **Microarray**, **Microchip** applications and Immunoblotting. A peroxidase substrate which produces a stable, insoluble blue precipitate at the reaction site with little or no background.

TMBMX-100	100 ml
TMBMX-500	500 ml
TMBMX-1000	1000 ml

### DAB (0.0694 Mol/L)

**Two component system. Stable for 18 months at 2 - 8 °C.**

This substrate is widely used for both immunoblotting and immunohistochemical staining techniques. It produces an insoluble end product that is brown in colour and insoluble in alcohol. It is supplied as 50x concentrate. DAB is a suspected carcinogen. Buffer is supplied as 10x concentrate (pH 7.6 when diluted).

DABM-10	10 ml
DABM-100	100 ml
DABM-500	500 ml
Buffer DABB-50	50 ml
Buffer DABB-500	500 ml

## Stable Liquid Substrates for AP

### Soluble Substrates

Cat. No. Quantity

### p-NPP (4.33 mMol/L)

**Improved Quality - New Formulation, more stable, lower background**

**One component. Stable for 30 months at 2 - 8 °C.**

This is an excellent substrate for phosphatase based ELISA assays. It produces a soluble end product which is yellow in colour and reads at 405 nm to 410 nm. Both kinetic and end point determinations can be performed. This product is buffered in DEA.

NPPD-100	100 ml
NPPD-500	500 ml
NPPD-1000	1000 ml

## Insoluble Substrates

### BCIP/NBT Plus (BCIP 0.692 mMol/L) (NBT 0.734 mMol/L)

**One component. Stable for 36 months at 2 - 8 °C. Non-toxic!**

This reagent may be used for both immunoblotting and immunohistochemical procedures. The system is based on hydrolysis of BCIP and reduction of NBT producing a deep purple reaction product. Moss' single component substrate is more sensitive than existing products and produces little or no background staining.

NBTH-100	100 ml
NBTH-500	500 ml
NBTH-1000	1000 ml

### BCIP/NBT (BCIP 0.577 mMol/L) (NBT 0.122 mMol/L)

**One component. Stable for 36 months at 2 - 8 °C. Non-toxic!**

Similar to the above product but formulated for immunoblotting procedures only.

NBTM-100	100 ml
NBTM-500	500 ml
NBTM-1000	1000 ml

## Fast Red

**Two component. Stable for 18 months at 2 - 8 °C.**

Used for tissue sections or immunoblotting. Uses LB salt which produces a brilliant red colour at reaction site.

Easy to use. **Simply mix the 2 liquid components 1:1 and apply.**

ASLB-100	100 ml
ASLB-500	500 ml
ASLB-1000	1000 ml

## Stabilizing Diluents

These products help improve stability of Enzyme-Antibody/-Antigen conjugates in their ready-to-use form.

### Stabilizing Diluent for Alkaline Phosphatase (AP) Conjugates

ALPD 100	100 ml
ALPD-500	500 ml
ALPD-1000	1000 ml

### Stabilizing Diluent for Horseradish Peroxidase (HRP) Conjugates

HRPD-100	100 ml
HRPD-500	500 ml
HRPD-1000	1000 ml

### Stabilizing Diluent for Phycoerythrin (PE) Conjugates

PECD-100	100 ml
PECD-500	500 ml
PECD-1000	1000 ml

### MossGuard™ HRP Conjugate Stabilizing Diluent

- Preserves HRP-activity over a six-month period at room temperature or up to 3 years at 4 °C.
- Compatible dyes are used to make a range of colours.
- Ready-to-use dilution which does not need aliquoting or freezing.
- Compatible with ELISA/EIA, ELISpot, RIA, immunoblots and microarrays.
- Customizable formulation depending on your requirements:  
MossGuard can be customized in color, preservative, or BSA-concentration based on your specific assay needs.
- Available in sizes of 100 ml and 1000 ml.



Cat. No.	Format	Description
MGHRP011	MossGuard-M	High signal HRP-conjugate stabilizing diluent
MGHRP022	MossGuard-T	Emulates "Guardian" from Thermo in appearances and format
MGHRP033	MossGuard-S	Substitute for "Stabilzyme" closely matching performance
<b>New!</b> MGHRP044	MossGuard-D	Further optimized version of MossGuard-M for even higher signal

## Liquid Stable Conjugates

MOSS specialized conjugates are produced in homogeneous, liquid stable form in batches ranging from 10 mg to >1000 mg. They are suitable for use on various Immunoassay, Flow Cytometry and Multiplexing platforms such as **Luminex™**. MOSS conjugates produce exceptional signal-to-noise ratios and can be customized for maximum performance. These conjugates are stable for 24 – 36 months and have an excellent lot-to lot reproducibility.

## Streptavidin-Phycoerythrin Conjugates

Moss Inc. streptavidin-phycoerythrin conjugates excel in diagnostic, molecular and cellular **fluorescence** detection assays based on biotin labeling. **SAPE** conjugates are manufactured reproducibly in homogeneous, liquid stable form and are suitable for use on various immunoassay, flow cytometry, and multiplexing platforms such as the Luminex™ and microarrays. Moss SAPE conjugation technology produces conjugates that result in exceptional signal-to-noise ratios, high titers, and the conjugates can also be customized to maximize performance for specific platform applications.

Streptavidin is a tetrameric protein isolated from the bacterium *Streptomyces avidinii* that exhibits an extremely high binding affinity for biotin ( $K_a = 10^{15} \text{ M}^{-1}$ ) with four biotin binding sites. R-Phycoerythrin is a pink-coloured protein purified from seaweed. The intense absorption maximum at 566 nm ( $E_{566 \text{ nm}} = 1.96 \times 10^6 \text{ M}^{-1} \text{ cm}^{-1}$ ) and the strong relative maxima near 545 nm and 498 nm provide multiple opportunities to select excitation wavelengths. The emission maximum is at 578 nm with a high quantum yield.

The high biotin affinity of streptavidin combined with the intense fluorescence signal of phycoerythrin make SAPE conjugates among the most sensitive fluorescence detection reagents. SAPE-001 is a highly sensitive single component reagent that is ready to use for the quantitative detection of biotin bound to a solid phase such as a microsphere or microarray, a biological cell, or in free solution. **SAPE-001 is stable for 36 months when refrigerated** and is not appreciably sensitive to normal laboratory light over the course of a typical usage and detection cycle. It should be refrigerated dark when not in use, and exposure to sunlight should be avoided.

**SAPE-001G15 and SAPE-001G75 are supplied in PBS with 50 % Glycerol Solution suitable for freezer storage down to -20 °C:** Contains 1 mg/ml SAPE in buffer containing 50 % glycerol, 5 mM sodium phosphate, 70 mM sodium chloride, pH 7.3. The solution is stabilized with either 15 mg/ml BSA (SAPE-001G15) or 75 mg/ml (SAPE-001G75) and preserved with 0.05 % sodium azide.

Moss has now been listed as a recommended vendor for SAPE Conjugates on **Luminex™ web site**.

## Antibody-Phycoerythrin-Conjugates

Cat. No.	Description	Quantity (Concentration)
GTIG-001	Goat anti Human IgG-PE conjugate	1 ml (1mg/ml)
GTIGF-001	Goat anti Human IgG, F(ab)2-PE conjugate	1 ml (1mg/ml)
GTIM-001	Goat anti Human IgM-PE conjugate	1 ml (1mg/ml)
GTIA-001	Goat anti Human IgA-PE conjugate	1 ml (1mg/ml)
GTIE-001	Goat anti Human IgE-PE conjugate	1 ml (1mg/ml)
DRIG-001	Donkey anti Rabbit IgG-PE conjugate	1 ml (1mg/ml)
DGIG-001	Donkey anti Goat IgG-PE conjugate	1 ml (1mg/ml)
GRIG-001	Goat anti Rabbit IgG-PE conjugate	1 ml (1mg/ml)
GMIG-001	Goat anti Mouse IgG-PE conjugate	1 ml (1mg/ml)

## Streptavidin-Alkaline Phosphatase and Streptavidin-Horseradish Peroxidase Conjugates

Moss Inc. streptavidin-horseradish peroxidase conjugates and streptavidin-alkaline phosphatase conjugates excel in diagnostic **chromogenic** detection assays. **SAHRP** conjugates and **SAAP** conjugates are manufactured reproducibly in homogeneous, stable liquid form and are suitable for use in various applications such as nucleic acid probe assays, immunoassays, blotting procedures, and microarrays.

Streptavidin exhibits an extremely high binding affinity for biotin. Alkaline phosphatase is a highly reactive recombinant enzyme that hydrolyzes chromogenic substrates such as p-NPP and BCIP/NBT. SAAP-001 is a highly sensitive single component reagent that is ready to use for the quantitative or qualitative detection of biotinylated molecules and surfaces. Horseradish peroxidase is an iron-heme bearing enzyme that can oxidize chromogenic substrates such as TMB, ABTS, AEC, and DAB. SAHRP-001 is a highly sensitive single component reagent that is ready to use for the quantitative or qualitative detection of biotinylated molecules and surfaces.

Cat. No.	Description	Quantity (Concentration)
SAPE-001	<b>Streptavidin-PE</b> conjugate, stabilized with 15 mg/ml BSA	1 ml (1mg/ml)
SAPE-001NB	<b>Streptavidin-PE</b> conjugate (No BSA)	1 ml (1mg/ml)
SAPE-001G15	Same as SAPE-001 with modified buffer to allow storage at -20 °C. contains 15 mg/ml BSA	1 ml (0.6 mg/ml)
SAPE-001G75	Same as SAPE-001 with modified buffer to allow storage at -20 °C. contains 75 mg/ml BSA	1 ml (0.6 mg/ml)
SAPE-003	Streptavidin-PE conjugate. Provides differentiated activity vs SAPE-001 through segregated population of conjugate during purification	1 ml (1mg/ml)
SAAP-001	Streptavidin-Alkaline Phosphatase conjugate	1 ml (1mg/ml)
SAHRP-001	Streptavidin-Horse Radish Peroxidase conjugate	1 ml (1mg/ml)

- ⇒ **Reliable performance** - all substrates are exceptionally stable in liquid form for 24 - 36 months, assuring extended kit shelf life.
- ⇒ **Non Toxic base matrix** - easy to handle and dispose of. No preservatives. Increased consistency.
- ⇒ **Lot-to-lot consistency** - ensured by maintaining sequestered raw materials and consistent manufacturing protocols.
- ⇒ **Moss Inc. can supply products in bulk or pre-dispensed format to your specifications.**

