

Fluoro•Spin Protein Labeling and Purification Kits

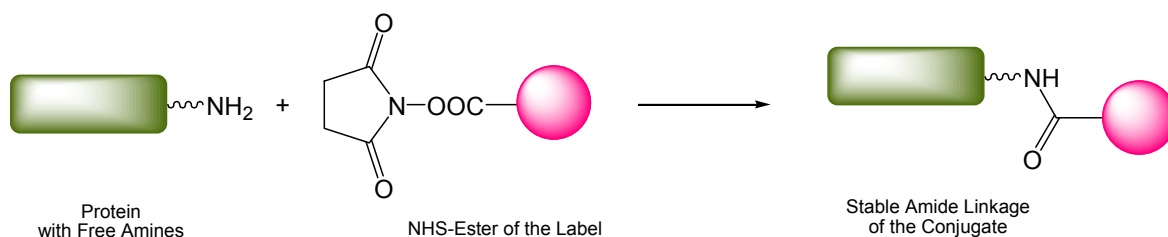
Fluoro•Spin™ Protein Labeling Kits are designed for precision labeling of antibodies, enzymes or proteins with a molecular weight greater than 25 kDa. Labeling is accomplished using the reactive N-hydroxy-succinimidyl ester (NHS) of a fluorescent dye.

A strong, covalent amide linkage is made between the dye and protein lysine groups. These bonds provide superior stability and with lower side reactions compared to isothiocyanate coupling.

Each kit contains easy to follow instructions and all components necessary for successful labeling and purification of dye-labeled protein conjugates.



Chemistry



Applications

Fluorescent conjugates are widely used for ELISA, flow cytometry, fluorescence microscopy, FRET, fluorescence polarization, fluorescence immunoassays, protein quantification and detection of protein-protein interactions.

Rapid and Simple Protocol

Active dye is mixed with buffered protein and incubated for 5 minutes at room temperature. The labeled protein conjugate is loaded onto a spin column and purified via a simple, two minute centrifugation step.

Quick-start optimized protocols for labeling of 100 μg and 1 mg of IgG are provided.

Features and Benefits

- **Convenient:** Includes all components necessary for labeling and purification
- **Rapid:** 10 minute protocol / 5 minutes hands-on-time
- **Simple:** Label and then purify with a spin column
- **Flexible:** Fluorophores with emission from 400 to 800 nm
- **Scalable:** Label up to 15 nmol of protein per reaction
- **Stability:** Stable amide linkage to target

Available in two sizes: 5 labeling reactions or 10 labeling reactions.

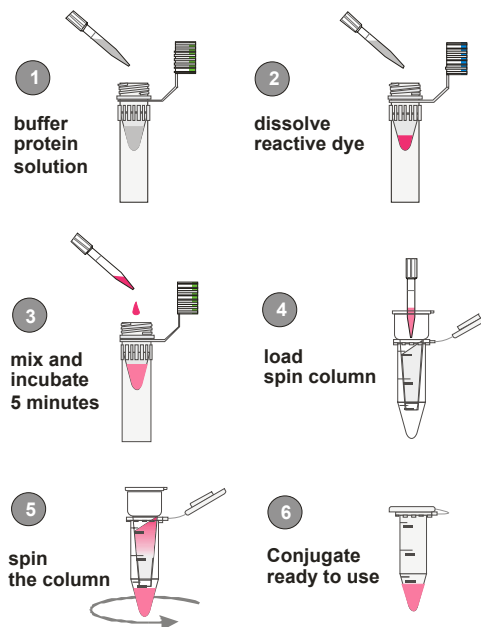
Detailed instructions are provided for labeling any protein size and for adjusting the desired number of dye molecules per protein.

High Variety of Fluorophores

Most fluorescent markers currently available from **emp BIOTECH** are listed in the table below. If you do not see what you are looking for, please contact us. We provide expert technical assistance and support and look forward to hearing from you.

Catalog Number	Protein Labeling Kit (5 or 10 reactions)		
	Fluorophor	Excitation (λ_{max} in nm)	Emission (λ_{max} in nm)
MK-F0108	MANT	325	412
MK-F0109	PT-678 (2 Photon Dye)	335	418
MK-D0113	DY-405	399	419
MK-D0114	DY-415	428	479
MK-D0143	DY-489XL	489	552
MK-F0101	Fluorescein	492	514
MK-D0109	DY-495-X5	497	523
MK-T0102	Tetramethylrhodamine	548	570
MK-D0112	DY-547	549	560
MK-D0103	DY-481XL	553	641
MK-D0116	DY-549	553	565
MK-D0101	DY-554	554	577
MK-D0111	DY-550	554	584
MK-D0128	DY-555	558	582
MK-R0103	X-Rhodamine	578	594
MK-D0102	DY-590	597	603
MK-D0104	DY-633	625	645
MK-D0107	DY-634	625	645
MK-D0118	DY-652	640	666
MK-D0110	DY-647	646	662
MK-D0115	DY-648	648	664
MK-D0105	DYQ-661	648	-
MK-D0117	DY-649	652	666
MK-D0119	DY-677	660	692
MK-D0106	DY-675	669	700
MK-F0109	PT-678 (2 Photon Dye)	674	418
MK-D0130	DY-700	699	728
MK-D0120	DY-701	699	732
MK-D0121	DY-734	714	743
MK-D0132	DY-751	729	766
MK-D0123	DY-752	730	762
MK-D0122	DY-747	744	770
MK-D0124	DY-777	760	788

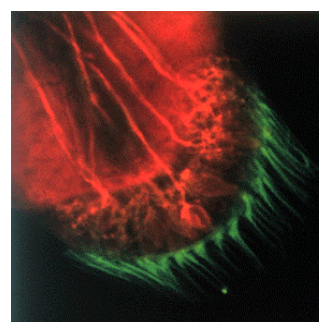
Typical Workflow:



Hands-on-time: 5 Minutes

Typical Results

Using the standard Quick-Start protocol, antibody was successfully labeled with fluorescent dye. Purification using a spin column resulted in ninety percent recovery and >99.99% dye removal.



Double Label Fluorescent Image Using Fluorescein and TAMRA Dye Conjugates

If the molecular weight of the protein is less than 25 kDa, free dye can be removed from the conjugate by using **CENTRI•Pure P2** columns (Catalog No. **CP-0110**, size exclusion ≥ 5 kDa).

Protein labeling kits with **redox markers** and **haptens** are also available. We look forward to your questions! Please contact us for technical support or for ordering information.