# **Electrophoresis, Blotting and Immunodetection**

## Enzyme substrates/kits - Fluorescence

## **ECL Plex Western blotting combination packs**





- Two fluorescent dye labels used to allow simultaneous detection of two proteins on Western blots
- · Highest sensitivity with possibility of multiplexing
- Broad dynamic range measures significant differences in protein levels with high specificity, which allows a quantitative detection
- · Fully compatible with Hybond ECL and new Hybond membranes

ECL Plex Western blotting detection system uses CyDye fluorescent technology to enable simultaneous two colour protein analysis on Western blots. This cannot be done on systems using chemiluminescent detection. The result is faster, more accurate differential analysis and a reduction in the variability caused by stripping and reprobing blots. By delivering superior image clarity and direct fluorescence, the ECL Plex system provides you with increased reproducibility and accuracy for the measurement of protein levels. Includes the following, sufficient for at least 1,000cm² of membrane:

- ECL Plex goat-a-mouse IgG-Cy3, 150μg
- ECL Plex goat-a-rabbit IgG-Cy5, 150μg
- ECL Plex Fluorescent Rainbow Markers, 120µL
- Hybond ECL, 10 x 10mm, 10 sheets or Hybond-LFP, 200 x 200mm, 3 sheets
- Protocol

Catalogue No	Description
GZRPN998	ECL Plex Western blotting combination pack (Cy3, Cy5, Hybond ECL)
GZRPN999	ECL Plex Western blotting combination pack (Cy3, Cy5, Hybond-LFP)

## CyDye DIGE fluors





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- Allows detection of up to three pre-labelled protein samples and standards on the same 2D electrophoresis gel
- Size- and charge-matched dyes enable co-migration of labelled samples within the ael
- Bright and highly sensitive dyes allow the use of the minimal labelling technique
- Minimal loss of signal during labelling, separation, and scanning
- No change in signal over wide pH range used during first dimension (IEF) separation
- Discrete signal from each fluor with minimal cross-talk contributes to high accuracy

CyDye DIGE fluors are available as minimal and saturation labelling dyes. The minimal dyes are intended for general 2D application use where sufficient amounts of sample are available. The saturation dyes from the scarce sample labelling kit are designed to be used for applications where only small amounts of sample are available, for example in laser capture microdissection. In total, three minimal dyes and two saturation dyes are available.

CyDye DIGE fluors are exceptional dyes for multicolour analysis, offering bright and intense colors with narrow excitation and emission bands. The fluors are spectrally distinct, making them ideal for multicolour detection. CyDye DIGE fluors utilise these benefits but are also size- and charge-matched specifically for 2D DIGE using Ettan DIGE system.

#### CyDye DIGE fluor minimal dyes

Protein samples and the internal standard are each labeled with one CyDye DIGE fluor minimal dye. These labelled samples are then combined, run on an isoelectric focusing gel in the first dimension, and separated by SDS-PAGE in the second dimension. Electrophoresis is simplified with Ettan IPGphor 3, or Multiphor II with Immobiline DryStrip gels in the first dimension and Ettan DALTtwelve or Ettan DALTsix electrophoresis systems in the second dimension. The ability to multiplex different CyDye DIGE fluor minimal dye labelled samples on the same gel means that the different samples will be subject to exactly the same first- and second dimension running conditions. Consequently, the same protein labelled with any of the CyDye DIGE fluor minimal dyes and separated on the same gel will migrate to the same position on the 2D gel and overlay. This limits experimental variation and ensures accurate within-gel matching.

#### CyDye DIGE fluor labelling kits for scarce samples

Two labeling kits for scarce samples are available: one contains the Cy3 and Cy5 saturation dyes; the other contains those and an additional vial of Cy3 dye to label a preparative gel. Each kit contains sufficient dye for at least 12 labelling reactions and allows labelling of as little as 5µg protein per labelling reaction. The CyDye DIGE fluor labelling kit for scarce samples and preparative gel labelling kit contains an additional vial of Cy3 dye for labelling up to 500µg of protein. The saturation dyes Cy3 and Cy5 from the labelling kit for scarce samples retain the advantages described for the minimal dyes. The saturation dyes in the two kits allow the labelling of 5µg protein per labelling reaction compared to 50µg with the minimal dyes. The maleimide reactive group of the saturation dyes covalently bonds to the thiol group of cysteine residues of proteins via a thioether linkage

Catalogue No	Description	Quantity
GZ25801082	CyDye DIGE fluor, Cy2 minimal dye	5nmol
GZ25801083	CyDye DIGE fluor, Cy3 minimal dye	5nmol
GZ25801085	CyDye DIGE fluor, Cy5 minimal dye	5nmol
GZ25800860	CyDye DIGE fluor, Cy2 minimal dye	10nmol
GZ25800861	CyDye DIGE fluor, Cy3 minimal dye	10nmol
GZ25800862	CyDye DIGE fluor, Cy5 minimal dye	10nmol
GZRPK0272	CyDye DIGE fluor, Cy2 minimal dye	25nmol
GZRPK0273	CyDye DIGE fluor, Cy3 minimal dye	25nmol
GZRPK0275	CyDye DIGE fluor, Cy5 minimal dye	25nmol
GZ28934530	CyDye DIGE fluor minimal dye labelling kit	2nmol
GZ28937373	DIGE trial pack, including: CyDye DIGE fluor minimal dye labelling kit (2nMol), 1 month free DeCyder 2D trial license	1
GZ25801065	CyDye DIGE fluor, minimal labelling kit	5nmol
GZ25800983	CyDye DIGE fluor labelling kit for scarce samples	1
GZ25800984	CyDye DIGE fluor labelling kit for scarce samples and preparative gel labelling	1
GZ28936683	CyDye DIGE fluor preparative gel labelling for scarce samples, Cy3 saturation dye	400nmol