

# ECL Substrate Kit (Ultra High Sensitivity) ab133409

★★★★★ [1 Abreviews](#) [10 References](#) [2 Images](#)

## Overview

---

**Product name** ECL Substrate Kit (Ultra High Sensitivity)

**Product overview** Ultra High Sensitivity ECL Substrate Kit ab133409 is a horseradish peroxidase (HRP) substrate specially developed for Western blotting detection of very low abundance proteins with 1.2pg-2ng of protein per band. ECL Substrate Kit ab133409 produces a strong, long-lived signal, which, combined with very low background levels, allows for long exposure times enabling the detection of low-abundance proteins. Additionally, the signal from ECL Substrate Kit ab133409 is linear with respect to protein amount over a broad range of concentrations, allowing the user to accurately quantify protein bands.

ECL Substrate Kit ab133409 is most suitable for detection of low-abundance proteins or in situations when amounts of available primary antibodies are very limited and high dilution factors are desired, or when primary antibodies have relatively low binding constants.

This ECL Substrate Kit also compatible with X-ray film detection, though the limited dynamic range of film will make resulting data less quantitative. The ECL substrate also produces a chemifluorescent signal that can be detected with a fluorescence imaging system using appropriate excitation and emission settings.

Our ECL kits include our popular **[ECL Substrate Kit ab65623](#)** and our high sensitivity ECL substrate kits:

- High Sensitivity **[ECL Substrate Kit ab133406](#)** to detect 23pg-187ng of protein per band
- Very High Sensitivity **[ECL Substrate Kit ab133408](#)** to detect 4.6pg-4.7ng of protein per band
- this kit (Ultra High Sensitivity ECL Substrate Kit ab133409) to detect 1.2pg-2ng of protein per band

Detection ranges in pg and ng stated above should be used for guidance only as detection range is dependent on the molecular weight of a protein.

This product was previously called Optiblot ECL Ultra Detect Kit (1.2pg-2ng).

## Notes

- Use:
- 100ml kit for 1000cm<sup>2</sup> membrane
  - 200ml kit for 2000cm<sup>2</sup> membrane

The primary antibody can often be diluted 5 to 10 fold more than usual when using this ECL substrate. A typical primary antibody dilution range using the substrate is 1/5000 - 1/20,000, with

a typical secondary antibody dilution range of 1/20,000 - 1/100,000. Some optimisation may be required.

**Tested applications**

**Suitable for:** WB

**Properties**

**Storage instructions**

Store at +4°C. Please refer to protocols.

Components	200 ml	100 ml	20 ml
Luminol/enhancer solution	1 x 100ml	1 x 50ml	1 x 10ml
Peroxide Chemiluminescent Detection Reagent	1 x 100ml	1 x 50ml	1 x 10ml

**Applications**

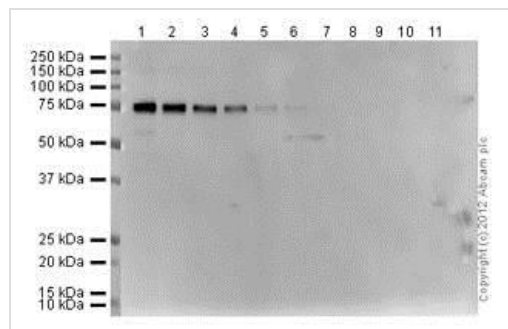
**The Abpromise guarantee**

Our **Abpromise guarantee** covers the use of ab133409 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration.

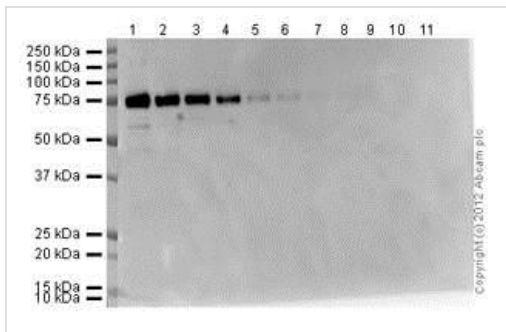
**Images**



Western Blot 1/50000 primary antibody, 1/5000 secondary antibody, 10 second exposure

Each lane contains the following amount of COX2 recombinant protein (**ab58868**): 1) 100ng 2) 50ng 3) 25ng 4) 12.5ng 5) 6.25ng 6) 3.13ng 7) 1.56ng 8) 780pg 9) 390pg 10) 195pg 11) 98pg. The blot was probed with rabbit anti-COX2 antibody (**ab15191**) at 1/50000 dilution and with a rabbit secondary (**ab97080**) at 1/5000 dilution. The blot was developed with 20ml of Optiblot ECL Ultra Detect.

**Exposure time:** 10 seconds



Western Blot 1/25000 primary antibody, 1/5000 secondary antibody, 10 second exposure

Each lane contains the following amount of COX2 recombinant protein (**ab58868**): 1) 100ng 2) 50ng 3) 25ng 4) 12.5ng 5) 6.25ng 6) 3.13ng 7) 1.56ng 8) 780pg 9) 390pg 10) 195pg 11) 98pg. The blot was probed with rabbit anti-COX2 antibody (**ab15191**) at 1/25000 dilution and with a rabbit secondary (**ab97080**) at 1/5000 dilution. The blot was developed with 20ml of Optiblot ECL Ultra Detect.

**Exposure time:** 10 seconds

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors