

Product datasheet

mCherry ELISA Kit ab221829

Recombinant SimpleStep ELISA[®]

2 References 8 Images

Overview

Product name	mCherry ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Media	8			2.9%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	Media	3			3.7%
Sample type	Cell culture supernatant, Cell culture extracts, Cell culture media				
Assay type	Sandwich (quantitative)				
Sensitivity	0.47 pg/ml				
Range	6.25 pg/ml - 400 pg/ml				
Recovery	Sample specific recovery				
	Sample type		Average %	Range	
	Cell culture supernatant		111	110% - 113%	
	Cell culture extracts		100	97% - 102%	
	Cell culture media		112	111% - 112%	
Assay time	1h 30m				
Assay duration	One step assay				
Product overview	mCherry ELISA Kit (ab221829) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of mCherry protein in cell culture extracts, cell culture media, and cell culture supernatant. It uses our proprietary SimpleStep ELISA® technology. Quantitate mCherry				

with 0.47 pg/ml sensitivity.

SimpleStep ELISA® technology employs capture antibodies conjugated to an affinity tag that is recognized by the monoclonal antibody used to coat our SimpleStep ELISA® plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. See the SimpleStep ELISA® protocol summary in the image section for further details. Our SimpleStep ELISA® technology provides several benefits:

- Single-wash protocol reduces assay time to 90 minutes or less
- High sensitivity, specificity and reproducibility from superior antibodies
- Fully validated in biological samples
- 96-wells plate breakable into 12 x 8 wells strips

A 384-well SimpleStep ELISA® microplate (**ab203359**) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Notes

This kit recognizes mCherry fluorescent protein from the organism *Discosoma sp.* mCherry is a general-purpose, red monomer, fluorescent protein with superior photostability. The mCherry fluorescent protein is a variant of the Discosoma red (DsRed) protein and is excited at wavelengths longer than 600 nm.

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Platform

Microplate (12 x 8 well strips)

Properties

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

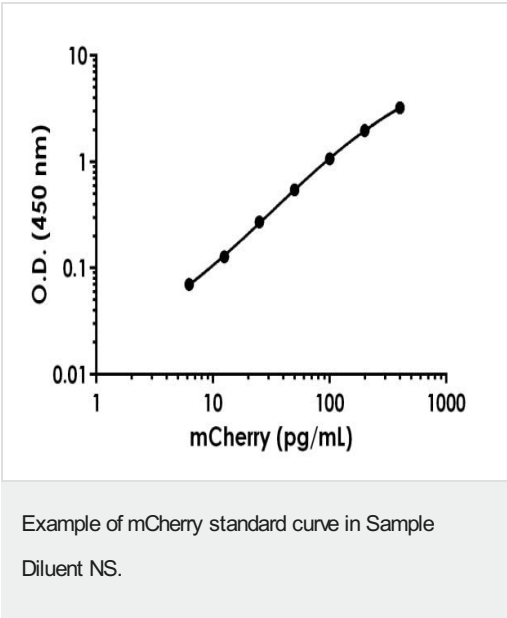
Components	1 x 96 tests
10X mCherry Capture Antibody	1 x 600µl
10X mCherry Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent 4BC	1 x 6ml
mCherry Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml

Components	1 x 96 tests
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

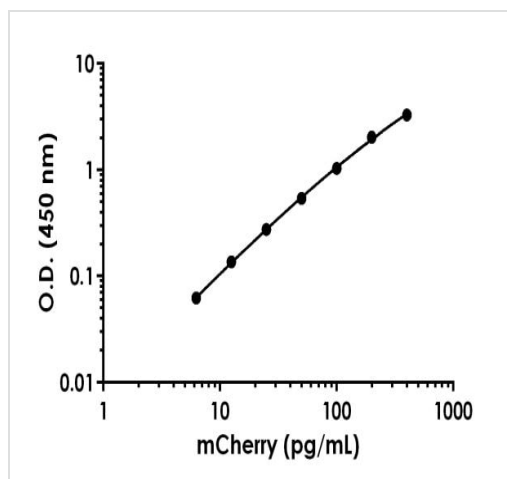
Relevance

mCherry is derived from proteins originally isolated from *Cnidarians* (jelly fish, sea anemones and corals), and is used as a fluorescent tracer in trasfection and transgenic experiments. The prototype for these fluorescent proteins is Green Fluorescent Protein (GFP), which is a ~27kDa protein isolated originally from the jellyfish *Aequoria victoria*. The mCherry protein is derived from DsRed, a red fluorescent protein related to GFP isolated from so-called disc corals of the genus *Discosoma*.

Images

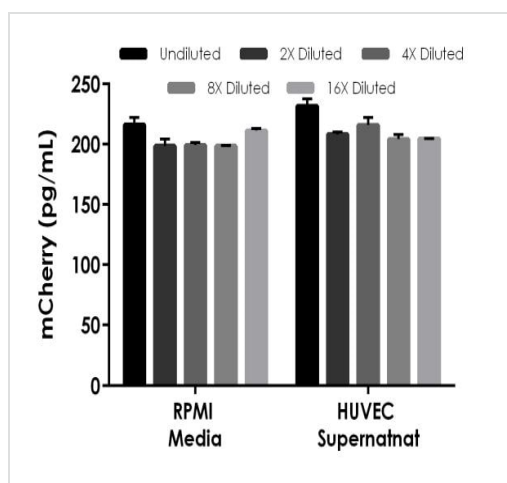


Background-subtracted data values (mean +/- SD) are graphed.



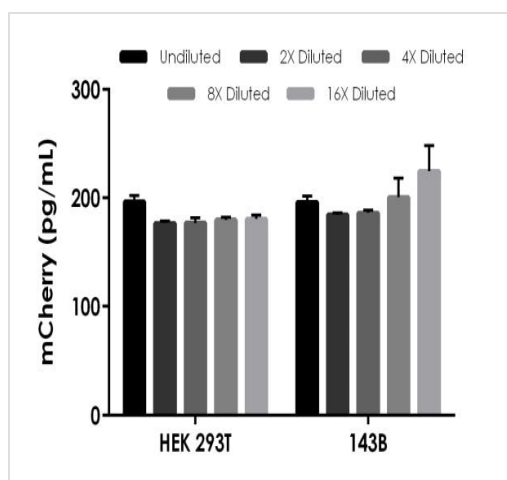
Example of mCherry standard curve in 1X Cell Extraction Buffer PTR.

Background-subtracted data values (mean \pm SD) are graphed.



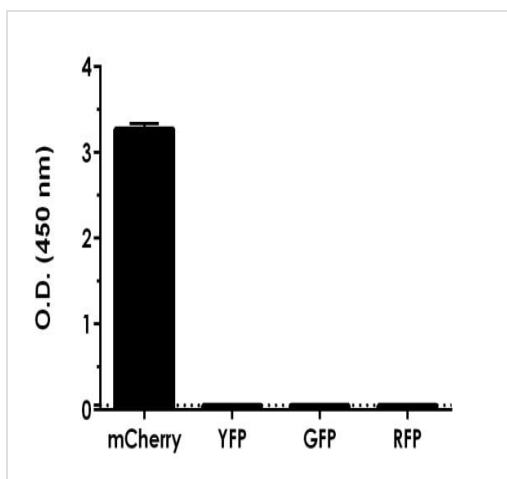
Interpolated concentrations of spiked mCherry in cell culture supernatant samples.

The concentrations of mCherry were measured in duplicates, interpolated from the mCherry standard curves and corrected for sample dilution. Undiluted samples are as follows: RPMI culture media with 10% FBS (100%), and HUVEC supernatant (100%). The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean mCherry concentration was determined to be 204.81 pg/mL in spiked RPMI culture media with 10% FBS (100%) and 212.94 pg/mL in spiked HUVEC supernatant (100%). HUVEC cells were cultured in RPMI media with 10% FBS and supernatant collected.



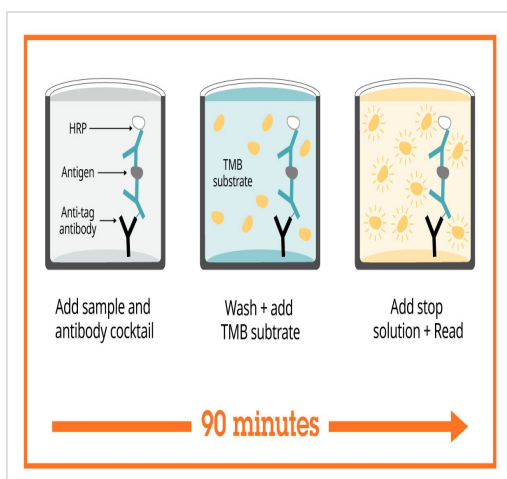
Interpolated concentrations of spiked mCherry in HEK 293T and 143B (wild-type) cell extract samples based on a 200 μ g/mL extract load.

The concentrations of mCherry were measured in duplicate and interpolated from the mCherry standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean \pm SD, $n=2$). The mean mCherry concentration was determined to be 182.08 pg/mL in spiked HEK 293T cell extract and 198.36 pg/mL in spiked 143B cell extract.



Raw O.D. values are shown for mCherry protein, YFP, GFP, and RFP.

All proteins were loaded at 400 pg/mL. The average background O.D. is represented by the dashed line. Signal from YFP, GFP, and RFP loaded at 400 pg/mL was equivalent to background.



Sandwich ELISA - mCherry ELISA Kit (ab221829)

SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Powered by recombinant antibodies

- Research with confidence**
Consistent and reproducible results
- Long-term and scalable supply**
Recombinant technology
- Success from the first experiment**
Confirmed specificity
- Ethical standards compliant**
Animal-free production

Sandwich ELISA - mCherry ELISA Kit (ab221829)

To learn more about the advantages of recombinant antibodies see [here](#).

**Get more done with
SimpleStep ELISA**



Easy to use

Single-wash 90-minute protocol



Flexible

Matched antibody pairs available



Precision antibodies

High sensitivity, specificity and reproducibility



Scalable

Now in 10-pack and 384-well formats

Sandwich ELISA - mCherry ELISA Kit (ab221829)

To learn more about the advantages of SimpleStep ELISA® kits see [here](#).

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