# abcam

## Product datasheet

## Mouse Nestin ELISA Kit ab223859

Recombinant SimpleStep ELISA

4 Images

Overview

**Precision** 

**Product name** Mouse Nestin ELISA Kit

**Detection method** Colorimetric

SD CV% Sample Mean n Cell Extract 5 3.4%

Inter-assay

Sample specific recovery

Intra-assay

Sample	n	Mean	SD	CV%	
Cell Extract	3			14.1%	

Sample type Cell culture extracts

Assay type Sandwich (quantitative)

Sensitivity 7.6 pg/ml

Range 15.6 pg/ml - 1000 pg/ml

Recovery

Sample type	Average %	Range
Cell culture extracts	107	103% - 112%

Assay time 1h 30m

**Assay duration** One step assay

Species reactivity Reacts with: Mouse

**Product overview** Mouse Nestin ELISA Kit (ab223859) is a single-wash 90 min sandwich ELISA designed for the

> quantitative measurement of Nestin protein in cell culture extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse Nestin with 7.6 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 (<u>ab203359</u>) is available to use as an alternative to the 96-well microplate provided with SimpleStep ELISA® kits.

Nestin is an intermediate filament protein and is a marker for neural stem cells. Nestin is required for brain and eye development. Nestin expression generally doesn't persist into adult hood, with the exception of the neuronal precursor cells of the subgranular zone. After cells have differentiated Nestin is downregulated and is replaced by tissue-specific intermediate filament proteins.

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Pre-coated microplate (12 x 8 well strips)

## Notes

#### **Platform**

### **Properties**

## Storage instructions

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

Components	1 x 96 tests
10X Mouse Nestin Capture Antibody	1 x 600µl
10X Mouse Nestin 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 CPR2	1 x 6ml
Mouse Nestin Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit

Components	1 x 96 tests
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

**Function** Required for brain and eye development. Promotes the disassembly of phosphorylated vimentin

intermediate filaments (IF) during mitosis and may play a role in the trafficking and distribution of

 $\hbox{\it IF proteins and other cellular factors to daughter cells during progenitor cell division. Required for}\\$ 

survival, renewal and mitogen-stimulated proliferation of neural progenitor cells.

Tissue specificity CNS stem cells.

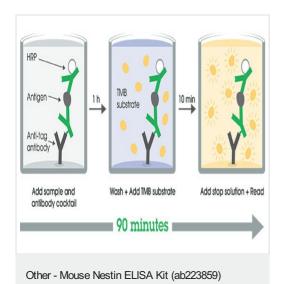
**Sequence similarities** Belongs to the intermediate filament family.

**Developmental stage**Upon terminal neural differentiation, nestin is down-regulated and replaced by neurofilaments.

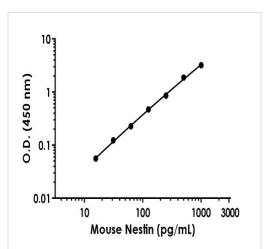
**Post-translational** Constitutively phosphorylated. This increases during mitosis when the cytoplasmic intermediate

**modifications** filament network is reorganized.

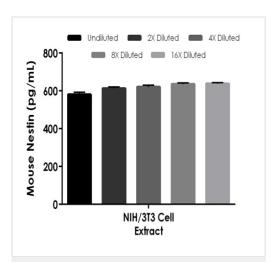
#### **Images**



SimpleStep ELISA technology allows the formation of the antibodyantigen 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.

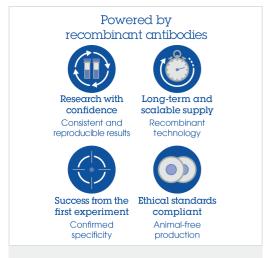


Example of MouseNestin standard curve in 1X Cell Extraction Buffer PTR Background-subtracted data values (mean +/- SD) are graphed.



Interpolated concentrations of native Nestin in Mouse NIH/3T3 cell extract sample and sample based on a 62.5  $\mu$ g/mL extract load

The concentrations of Nestin were measured in duplicate and interpolated from the Nestin standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean Nestin concentration was determined to be 678 pg/mL in NIH/3T3 Cell extract.



Sandwich ELISA - Mouse Nestin ELISA Kit (ab223859)

To learn more about the advantages of recombinant antibodies see **here**.

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