abcam

Product datasheet

Mouse GFAP ELISA Kit ab233621

Recombinant SimpleStep ELISA®

4 References   6 Images

Overview

Product name	Mouse GFAP ELISA Kit
Detection method	Colorimetric
Precision	

Intra-assay

Sample	n	Mean	SD	CV%
Tissue	8			4.4%

Inter-assay

Sample	n	Mean	SD	CV%
Tissue	3			5.8%

Sample type	Tissue Extracts
Assay type	Sandwich (quantitative)
Sensitivity	8.7 pg/ml
Range	125 pg/ml - 8000 pg/ml
Recovery	

Sample specific recovery

Sample type	Average %	Range
Tissue Extracts	97	95% - 100%

Assay time	1h 30m
Assay duration	One step assay
Species reactivity	**Reacts with:** Mouse
Product overview	Mouse GFAP ELISA Kit (ab233621) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of GFAP protein in tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate Mouse GFAP with 8.7 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.

We do **not** recommended using this kit to analyze blood samples.

Notes

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.

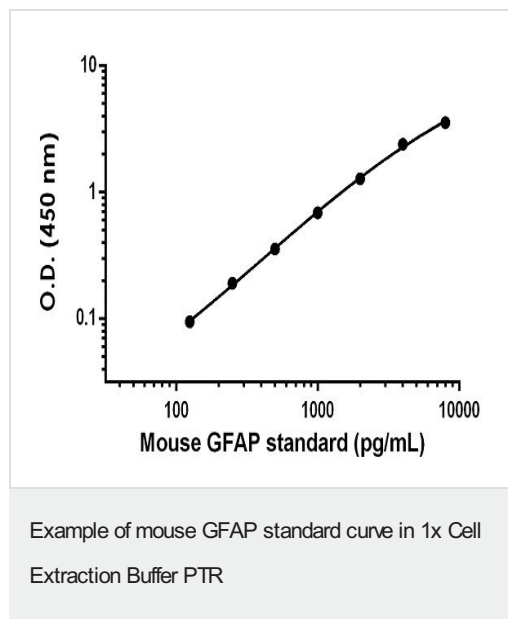**Platform**

Microplate (12 x 8 well strips)

Properties

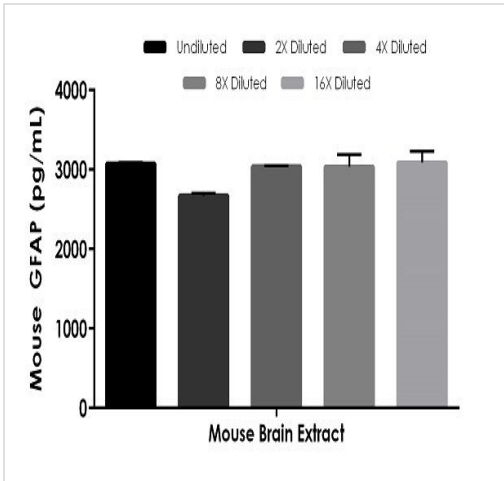**Storage instructions**

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

Components	1 x 96 tests	1 x 96 tests
10X Mouse GFAP Capture Antibody	1 x 600µl	1 x 600µl
10X Mouse GFAP Detector Antibody	1 x 600µl	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml	1 x 10ml
Antibody Diluent CP2	1 x 6ml	0 x 0ml
Mouse GFAP Lyophilized Recombinant Protein	2 vials	2 vials
Plate Seals	1 unit	1 unit
Sample Diluent NS (ab193972)	1 x 12ml	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit	1 unit
Stop Solution	1 x 12ml	1 x 12ml
TMB Development Solution	1 x 12ml	1 x 12ml

Function	GFAP, a class-III intermediate filament, is a cell-specific marker that, during the development of the central nervous system, distinguishes astrocytes from other glial cells.
Tissue specificity	Expressed in cells lacking fibronectin.
Involvement in disease	Defects in GFAP are a cause of Alexander disease (ALEXD) [MIM:203450]. Alexander disease is a rare disorder of the central nervous system. It is a progressive leukoencephalopathy whose hallmark is the widespread accumulation of Rosenthal fibers which are cytoplasmic inclusions in astrocytes. The most common form affects infants and young children, and is characterized by progressive failure of central myelination, usually leading to death usually within the first decade. Infants with Alexander disease develop a leukoencephalopathy with macrocephaly, seizures, and psychomotor retardation. Patients with juvenile or adult forms typically experience ataxia, bulbar signs and spasticity, and a more slowly progressive course.
Sequence similarities	Belongs to the intermediate filament family.
Post-translational modifications	Phosphorylated by PKN1.
Cellular localization	Cytoplasm. Associated with intermediate filaments.

Images

Example of mouse GFAP standard curve in 1x Cell Extraction Buffer PTR

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

Interpolated concentrations of native GFAP in mouse brain extract based on a 2.5 µg/mL extract load

The concentrations of GFAP were measured in duplicate and interpolated from the GFAP standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean GFAP concentration was determined to be 2931.53 pg/mL in mouse brain extract.
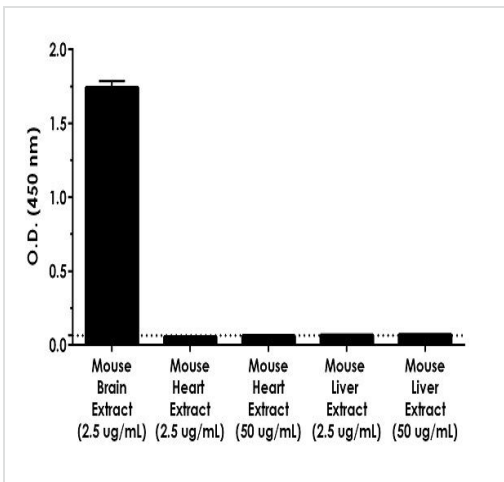
Tissue specificity was assessed by comparison of raw signal in mouse brain, heart, and liver extracts

Low (2.5 µg/ml) and high (50 µg/ml) concentrations of mouse heart and liver extracts were compared to the brain tissue Heart and liver extracts do not produce signal above background.
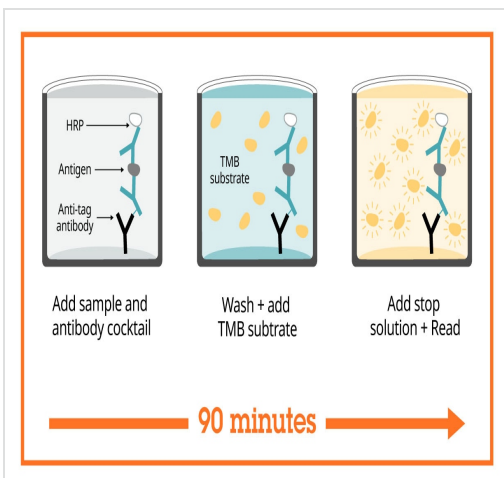
Sandwich ELISA - Mouse GFAP ELISA Kit (ab233621)

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 - Mouse GFAP ELISA Kit

(ab233621)

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 - Mouse GFAP ELISA Kit

(ab233621)

To learn more about the advantages of SimpleStep ELISA® kits see **here**.

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