

## Product datasheet

# JNK2 ELISA Kit ab218265

Recombinant SimpleStep ELISA

[5 Images](#)

### Overview

**Product name** JNK2 ELISA Kit

**Detection method** Colorimetric

**Precision**

Intra-assay

Sample	n	Mean	SD	CV%
MCF7 extract	5			2.4%

Inter-assay

Sample	n	Mean	SD	CV%
MCF7 extract	3			11.9%

**Sample type** Cell culture extracts, Tissue Extracts

**Assay type** Sandwich (quantitative)

**Sensitivity** 80.7 pg/ml

**Range** 234 pg/ml - 15000 pg/ml

**Recovery**

Sample specific recovery

Sample type	Average %	Range
Cell culture extracts	96	93% - 110%
Tissue Extracts	103	100% - 105%

**Assay time** 1h 30m

**Assay duration** One step assay

**Species reactivity** **Reacts with:** Mouse, Rat, Human

**Product overview**

JNK2 ELISA Kit (ab218265) is a single-wash 90 min sandwich ELISA designed for the quantitative measurement of JNK2 protein in cell culture extracts and tissue extracts. It uses our proprietary SimpleStep ELISA® technology. Quantitate JNK2 with 80.7 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.

## Notes

JNK2 is a c-Jun N-terminal kinase related to JNK1 and JNK3; all are mitogen-activated protein kinase family members. The JNKs are activated in response to stress stimuli, including inflammatory cytokines, ultraviolet irradiation, heat shock, and osmotic shock. JNK2 functions in signal transduction by phosphorylating transcription factors. JNK2 amino acid sequence is highly conserved across mammals and human JNK2 has approximately 81% sequence identity to human JNK1 and 84% to JNK3.

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## Platform

Pre-coated microplate (12 x 8 well strips)

## Properties

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

Components	1 x 96 tests
10X JNK2 Capture Antibody	1 x 600µl
10X JNK2 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 CPI - HAMA Blocker (ab193969)	1 x 6ml
JNK2 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit

Components	1 x 96 tests
Sample Diluent NS (ab193972)	1 x 12ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

## Function

Responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating a number of transcription factors, primarily components of AP-1 such as c-Jun and ATF2 and thus regulates AP-1 transcriptional activity. In T-cells, JNK1 and JNK2 are required for polarized differentiation of T-helper cells into Th1 cells.

JNK2 isoforms display different binding patterns: alpha-1 and alpha-2 preferentially bind to c-Jun, whereas beta-1 and beta-2 bind to ATF2. However, there is no correlation between binding and phosphorylation, which is achieved at about the same efficiency by all isoforms. JUNB is not a substrate for JNK2 alpha-2, and JUND binds only weakly to it.

## Sequence similarities

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.

Contains 1 protein kinase domain.

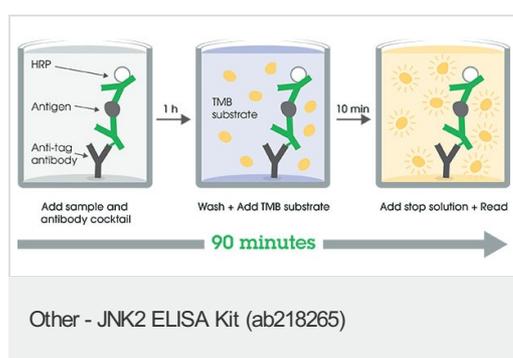
## Domain

The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.

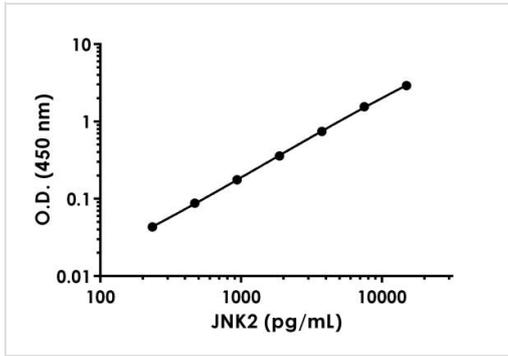
## Post-translational modifications

Dually phosphorylated on Thr-183 and Tyr-185, which activates the enzyme. Autophosphorylated in vitro.

## Images

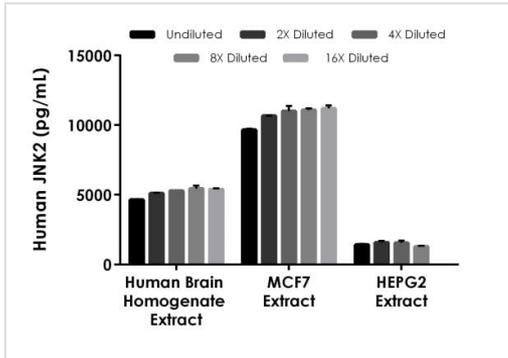


SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.



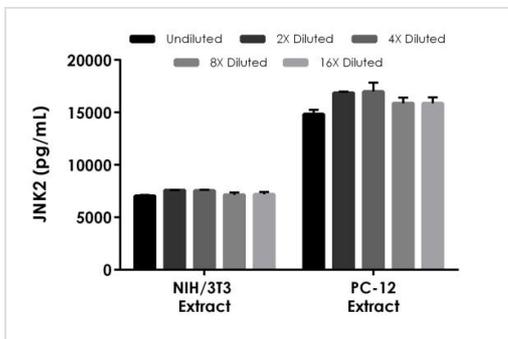
Example of JNK2 standard curve.

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



Interpolated concentrations of native JNK2 in human brain homogenate extract, MCF7 extract, and HEPG2 extract.

Undiluted extract based on an 800 µg/mL, 300 µg/mL, and 800 µg/mL respective extract load. The concentrations of JNK2 were measured in duplicate and interpolated from the JNK2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean JNK2 concentration was determined to be 5175 pg/mL in human brain homogenate extract, 10721 pg/mL in MCF7 extract and 1451 pg/mL in HEPG2 extract.



Interpolated concentrations of native JNK2 in mouse NIH/3T3 cell extract and rat PC-12 cell extract based on a 400 µg/mL extract load.

The concentrations of JNK2 were measured in duplicate and interpolated from the JNK2 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean JNK2 concentration was determined to be 7288 pg/mL in mouse NIH/3T3.

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Sandwich ELISA - JNK2 ELISA Kit (ab218265)

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

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