

Product datasheet

HSP70 ELISA Kit ab133060

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Overview

Product name HSP70 ELISA Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	24			< 5%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	9			< 13%

Sample type Tissue Extracts, Cell Lysate

Assay type Sandwich (quantitative)

Sensitivity 200 pg/ml

Range 780 pg/ml - 50000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Tissue Extracts	>=90	% - %
Cell Lysate	>=90	% - %

Assay time 4h 30m

Assay duration Multiple steps standard assay

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

Product overview

Abcam's HSP70 *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate quantitative measurement of HSP70 in samples from Human, Mouse and Rat origins. This assay allows for the quantitative determination of inducible HSP70 from cell lysates and tissue extracts.

A HSP70 monoclonal antibody has been precoated onto 96-well plates. Standards or test

samples are added to the wells, incubated and then washed. A HSP70 polyclonal antibody is then added, incubated and washed. An HRP conjugated anti-IgG antibody is then added, incubated. The plate is washed once more and the TMB substrate is then added which HRP catalyzes, generating a blue coloration after incubation. A stop solution is added which generates conversion to yellow color read at 450 nm which is proportional to the amount of analyte bound.

Get higher sensitivity in only 90 minutes with [Human HSP70 ELISA Kit \(ab187399\)](#) from our SimpleStep ELISA® range.

Notes

Inducible heat shock protein 70 (HSP70) is a stress protein whose expression is upregulated when the cell or organism is placed under conditions of stress. HSP70 is essential for cellular recovery, survival, and maintenance of normal cellular function. It is also a molecular chaperone that prevents protein aggregation and refolds damaged proteins in response to cellular stress caused by environmental insults, pathogens, and disease. Current research is aimed at exploiting HSP70's cellular protective abilities as a therapeutic strategy against damaging cellular stress.

In most mammals, the expression of inducible HSP70 is strictly stress inducible and can only be detected following a significant stress upon the cell or organism. However, in humans and primates, inducible HSP70 is present at basal levels and is upregulated in response to stress. The role of HSP70 has been studied in a variety of medically relevant models or conditions such as hyperthermia, hypertension, toxic exposure to chemical agents, hypoxia, ischemia, inflammation, autoimmunity, apoptosis, cancer, organ transplantation, and bacterial and viral infections. HSP70 has also been studied in the normal processes of aging, spermatogenesis, menstruation, and physical activity such as exercise.

Tested applications

Suitable for: Sandwich ELISA

Platform

Microplate

Properties

Storage instructions

Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer Concentrate	1 x 100ml
5X Extraction Reagent	1 x 10ml
Anti-HSP70 Microplate (12 x 8 wells)	1 unit
Anti-rabbit IgG HSP70 Horseradish Peroxidase Conjugate	1 x 10ml
HSP70 Antibody	1 x 10ml
Recombinant HSP70 Standard	1 x 25µl
Sample Diluent 2	1 x 50ml
Stop Solution 2	1 x 10ml
TMB Substrate	1 x 10ml

Cellular localization

Cytoplasm. Note: Localized in cytoplasmic mRNP granules containing untranslated mRNAs

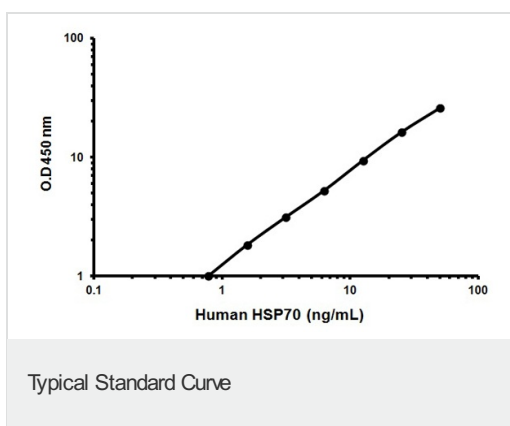
Applications

Our [Abpromise guarantee](#) covers the use of **ab133060** 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
Sandwich ELISA		Use at an assay dependent concentration.

HSP70 ELISA Kit images



Representative Standard Curve using ab133060.

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