

# Human HSP70/HSPA1A antibody

Catalog Number: AHS0703

## PRODUCT INFORMATION

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**Catalog number**

AHS0703

**Clone No.**

4E7

**Product type**

Monoclonal Antibody

**UnitProt No.**

P0DMV8

**NCBI Accession No.**

NP\_005336

**Alternative Names**

Heat shock 70kDa protein 1A, Heat shock protein family A member 1A, HSP70, HSP70.1, HSP70-1/HSP70-2, HSPA1, HSPA1A, HSPA1B

## PRODUCT SPECIFICATION

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**Antibody Host**

Mouse

**Reacts With**

Human

**Concentration**

1mg/ml (determined by BCA assay)

**Formulation**

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

**Immunogen**

Recombinant human Hsp70 (1-641aa) purified from E. coli

**Isotype**

IgG1 kappa

**Purification Note**

By protein-G affinity chromatography

**Application**

ELISA, WB, ICC/IF, IHC

**Usage**

The antibody has been tested by ELISA, Western blot, ICC/IF and IHC analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

# Human HSP70/HSPA1A antibody

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## Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

### Description

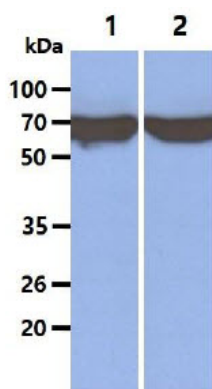
Hsp70 is a human heat shock protein. Hsp70 is an important part of the cell's machinery for protein folding, and help to protect cells from stress. In most species, there are many proteins that belong to the hsp70 family. Some of these are only expressed under stress conditions, while some are present in cells under normal growth conditions and are not heat-inducible. Hsp70 can be found in different cellular compartments (nuclear, cytosolic, mitochondrial, endoplasmic reticulum, etc... ), and the chaperone function of hsp70 is required for protection against stress-induced apoptosis.

### General References

Lewis MJ, et al., (1985) EMBO J 4:3137-3143.  
Gething M-J, et al., (1992) Nature 355:33-45.  
Dick D.M, et al., (2000) Mol Cell Biol 20(19):7146-7159.

## DATA

### Western blot analysis (WB)

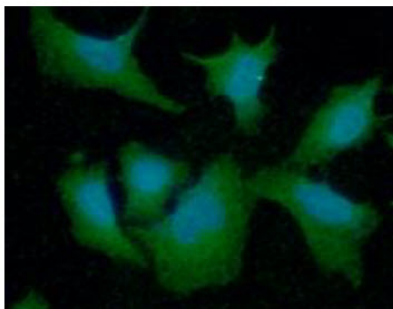


The Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Hsp70 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: 293T cell lysate

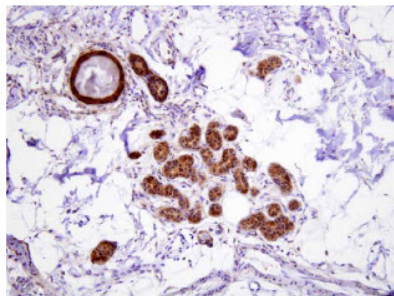
Lane 2.: HeLa cell lysate

### Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of HSP70 in A549 cells line. The cell was stained with AHS0703 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

## Immunohistochemistry (IHC)



Paraffin embedded sections of human eccrine gland were incubated with anti-human Hsp70 (1:100) for 2 hours at room temperature. Antigen retrieval was performed in 0.1M sodium citrate buffer and detected using Diaminobenzidine (DAB)