# Anti-HSP70 IgG/A/M (human), ELISA kit

**Most comprehensive portfolio of heat shock protein (chaperone) products commercially available.**

This assay allows for reproducible, accurate and precise determination of IgG , IgA and IgM antibodies (total) to human Hsp70 in serum. The ELISA kit uses recombinant human Hsp70 bound to the wells of the plate to bind anti-human Hsp60 antibodies present in human serum. The captured anti-human Hsp70 antibodies are detected with a HRP conjugated goat polyclonal antibody specific for human IgG, IgA and IgM molecules. The assay is developed with tetramethylbenzidine substrate pro ducing a blue color in proportion to the amount of captured anti -human Hsp70 antibodies. The color development is stopped with acid stop solution which converts the endpoint color to yellow. The intensity of the color is measured in a microplate reader at 450 nm.

The Hsp70 family of heat shock protiens contains multiple homologs ranging in size from 66-78 kDa, and are the eukaryotic equivalents of the bacterial DnaK. The most studied Hsp70 members include the cytosolic stress-induced Hsp70 (Hsp72), the constitutive cytosolic Hsc70 (Hsp73), and the ER-localized BiP (Grp78). Hsp70 family members contain highly conserved N-terminal ATP-ase and C-terminal protein binding domains. Binding of peptide to Hsp70 is assisted by Hsp40, and stimulates the inherent ATPase activity of Hsp70, facilitating ATP hydrolysis and enhanced peptide binding. Hsp70 nucleotide exchange and substrate binding coordinates the folding of newly synthesized proteins, the re-folding of misfolded or denatured proteins, coordinates trafficking of proteins across cellular membranes, inhibits protein aggregation, and targets the degradation of proteins via the proteasomal pathway.

**Citations:** 18 View Online »

## Ordering Information

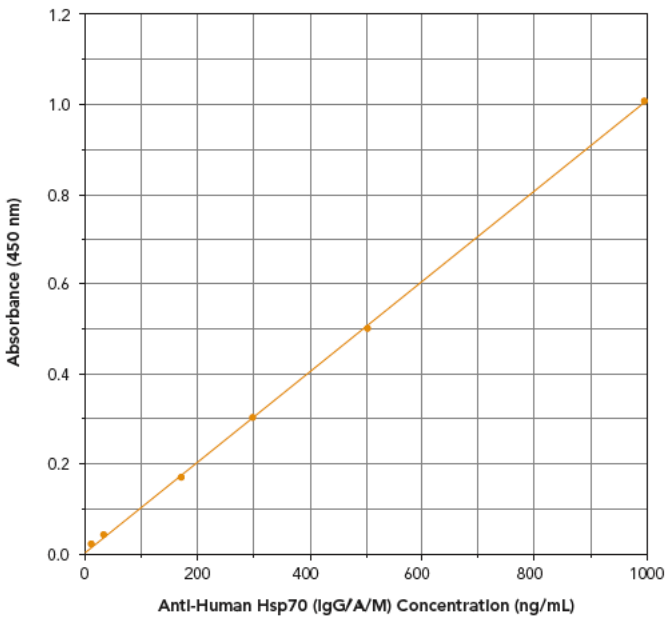
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| | |
|---|---|
| **ADI-EKS-750** | 96 wells |

## Manuals, SDS & CofA

View Online »

- Quantitative - fully quantitate levels of auto-antibodies to HSP70
- Higher throughput - obtain results from up to 41 samples in duplicate in less than 4 hours
- Easy-to-use - liquid color-coded reagents and pre-coated plates reduce errors and save time in the lab


1.2
1.0
0.8
0.6
0.4
0.2
0.0
Absorbance (450 nm)
0
200
400
600
800
1000
Anti-Human Hsp70 (IgG/A/M) Concentration (ng/mL)

## Handling & Storage

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|---|---|
| **Use/Stability** | Store all components at 4°C, except standard at -20°C. |
| **Shipping** | Dry Ice |

## Regulatory Status

RUO - Research Use Only

## Product Details

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|---|---|
| **Alternative Name** | Heat shock protein 70, HSP72 |
| **Application** | Colorimetric detection, ELISA |
| **Application Notes** | For the quantitative determination of anti-HSP70 IgG/A/M autoantibodies in human serum. Cited sample types include human plasma as well as rat serum or rat plasma. |
| **Assay Time** | <4 hours |
| **Compatibility** | This product is compatible with the **Absorbance 96 Plate Reader**. |
| **Contents** | Microtiter plate, Standard, Sample diluent 2, Wash buffer concentrate, HRP Conjugate, TMB Substrate, Stop solution 2 |
| **Sensitivity** | 6.79 ng/ml (range 31.25 – 1,000 ng/ml) |
| **Species Reactivity** | Human |
| **Wavelength** | 450 nm |

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