HSP70 High Sensitivity ELISA kit

Only commercially available kit specifically validated and sensitive enough to quantify HSP70 (HSP72) in serum and plasma samples.

The HSP70 high sensitivity EIA kit is a colorimetric immunometric enzyme immunoassay kit with results in 4.5 hours. Absorbance is read at 450 nm. This is the only commercially available kit specifically validated and sensitive enough to quantify HSP70 (HSP72) in serum and plasma samples, as referenced by the Cell Stress Society International.

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.

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Ordering Information

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ADI-EKS-715	96 wells

Manuals, SDS & CofA

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- Highly sensitive measurement, quantify as little as 90pg/ml Hsp70 (Hsp72)
- Fully validated for use with serum and plasma samples
- High specificity, measures stress-induced Hsp70 (Hsp72) with negligible reactivity from other Hsp70 family members (e.g. Hsc70/Hsp73, Grp78)
- Higher throughput format with results in just 4.5 hours for up to ~40 samples in duplicate

Handling & Storage

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

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Heat shock protein 70, HSP72
Application	Colorimetric detection, ELISA
Application Notes	For the quantitative determination of HSP70 in serum and plasma of human, mouse, and rat origin. Cited sample(s) include cell lysates, urine, canine serum, and cerebrospinal fluid.
Assay Time	4.5 hours
Compatibility	This product is compatible with the **Absorbance 96 Plate Reader**.
Contents	Microtiter plate, Assay buffer 28, Standard, Wash buffer concentrate, Antibody, Conjugate, TMB Substrate, Stop solution 2
Crossreactivity	HSP72 (human) (100%), HSP70 (rat) (117.6%), HSP70 (salmon) (0.8%), HSP70B' (human) (5.4%), DnaK (E.coli) (0.5%), and <0.016%: Hsc70 (bovine), Grp78 (hamster), HSP71 (M. tuberculosis)
Sensitivity	90 pg/ml (range 0.20-12.5 ng/ml)
Species Reactivity	Human, Mouse, Rat
UniProt ID	P0DMV8 (HSPA1A), P0DMV9 (HSPA1B)
Wavelength	450 nm

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