ARG82968
Human HSP70 ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG82968 Human HSP70 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human HSP70 in serum, plasma and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	Hsp 70
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	39 pg/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	78 - 5000 pg/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: less than 10% Inter-Assay CV: less than 10%
Alternate Names	Heat shock 70 kDa protein 1A; HSPA1; HSP70I; Heat shock 70 kDa protein 1; HSP70-1A; HEL-S-103; HSP70.1; HSP72; HSP70-1

Application Instructions

Assay Time	~ 3.5 hours

Properties

Form	96 well
Storage instruction	Store the kit at 4°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	HSPA1A
Gene Full Name	heat shock 70kDa protein 1A
Background	This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. In conjuction with other heat shock proteins, this protein stabilizes existing proteins against aggregation and mediates the folding of newly translated proteins in the cytosol and in organelles. It is also involved in the ubiquitin-proteasome pathway through interaction with the AU-rich element RNA-binding protein 1. The gene is located in the major histocompatibility complex class III region, in a cluster with two closely related genes which encode similar proteins. [provided by RefSeq, Jul 2008]

Function	In cooperation with other chaperones, Hsp70s stabilize preexistent proteins against aggregation and mediate the folding of newly translated polypeptides in the cytosol as well as within organelles. These chaperones participate in all these processes through their ability to recognize nonnative conformations of other proteins. They bind extended peptide segments with a net hydrophobic character exposed by polypeptides during translation and membrane translocation, or following stress-induced damage. In case of rotavirus A infection, serves as a post-attachment receptor for the virus to facilitate entry into the cell. Essential for STUB1-mediated ubiquitination and degradation of FOXP3 in regulatory T-cells (Treg) during inflammation. [UniProt]
Highlight	Related products: Hsp70 antibodies; Hsp70 ELISA Kits; New ELISA data calculation tool: Simplify the ELISA analysis by GainData
PTM	In response to cellular stress, acetylated at Lys-77 by NA110 and then gradually deacetylated by HDAC4 at later stages. Acetylation enhances its chaperone activity and also determines whether it will function as a chaperone for protein refolding or degradation by controlling its binding to co-chaperones HOPX and STUB1. The acetylated form and the non-acetylated form bind to HOPX and STUB1 respectively. Acetylation also protects cells against various types of cellular stress.