

[pSer326]HSF1 ELISA kit

Sensitive ELISA kit for this key transcription factor for heat shock protein (chaperone) research.

The HSF1 EIA kit is a complete kit for the quantitative determination of HSF1 phosphorylated at Ser³²⁶ in cell lysates and tissue extracts from human and mouse origins.

HSF1 belongs to a family of heat shock transcription factors (HSFs) that bind to highly conserved heat shock elements (HSEs) in the promoter regions of heat shock genes and regulate the expression of heat shock proteins (Hsps). Most HSFs have several common functional motifs including an N-terminal DNA binding domain essential for binding to the HSE and adjacent hydrophobic repeats essential for the formation of active trimers. Another short hydrophobic repeat located towards the C-terminal region of most HSFs is thought to be necessary for suppression of trimerization except in the case of yeast HSF and human HSF4. In higher eukaryotes, HSF1 is predominantly found in a diffuse cytoplasmic and nuclear distribution in unstressed cells. On exposure to heat shock and other stresses, HSF1 localizes within seconds to discrete nuclear granules and on recovery from stress, HSF1 rapidly dissipates from the stress granules to a diffuse nucleoplasmic distribution. HSF1 is post-translationally modified by both phosphorylation and sumoylation. Inducible phosphorylation at Ser230, Ser326, and Ser419 promote HSF1 activity, while constitutive phosphorylation sites at Ser303, Ser307, and Ser308 are inhibitory.

Citations: 2

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Ordering Information

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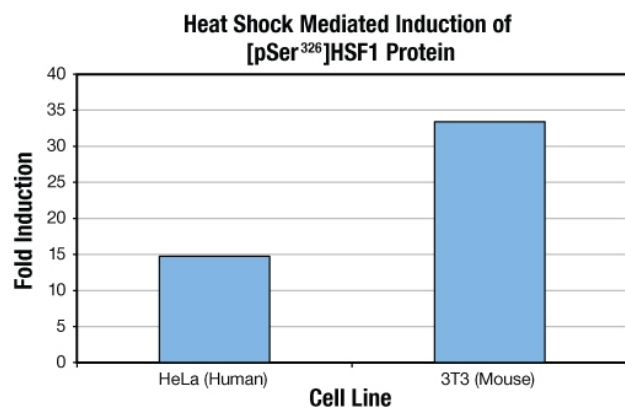
ADI-900-199

96 wells

Manuals, SDS & CofA

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- Sensitive - measure pg/ml of HSF1 and use less precious sample compared to Western blot
- Time Saving - results from up to 40 samples in duplicate in just 3 hours
- Convenient - ready-to-use liquid color-coded reagents and pre-coated plate



HeLa and 3T3 cells were grown to approximately 80% confluency and subjected to heat shock at 42°C for 2 hours. Extracts were prepared as described in the manual and the levels of HSF1 were determined in the assay. Induction is expressed as the fold change relative to non heat-shocked control samples.

Handling & Storage

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|---------------------------|---|
| Use/Stability | All components of this kit, except the standard and microtiter plate, are stable at +4°C until the kit's expiration date. The standard and microtiter plate must be stored at -20°C upon receipt. |
| Short Term Storage | -20°C |
| Long Term Storage | -20°C |
| Shipping | Blue Ice |

Regulatory Status

RUO - Research Use Only

Product Details

| | |
|---------------------------|--|
| Alternative Name | Heat shock transcription factor 1 |
| Application | Colorimetric detection, ELISA |
| Application Notes | For the quantitative determination of human and mouse [pSer ³²⁶]HSF1 in cell lysates and tissue. |
| Assay Time | 3 hours |
| Compatibility | This product is compatible with the Absorbance 96 Plate Reader . |
| Contents | Antibody, Assay buffer, Conjugate, Extraction reagent #1, Microtiter plate, Standard, Stop solution, TMB substrate, Wash buffer concentrate. |
| Sensitivity | 61 pg/ml (range 0.39 – 12.5 ng/ml) |
| Species Reactivity | Human, Mouse |
| UniProt ID | Q00613 |
| Wavelength | 450 nm |



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