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Rabbit Anti-phospho-HSF1 (Ser326) antibody

SL3745R

Product Name:	phospho-HSF1 (Ser326)
Chinese Name:	磷酸化热休克因子1(Ser326)抗体
Alias:	HSF1 (phospho S326); p-HSF1 (phospho S326); Heat shock factor 1; Heat shock factor protein 1; Heat shock transcription factor 1; HSF 1; hsf1; HSTF 1; HSTF1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/TestICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	57kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human HSF1 around the phosphorylation site of Ser326:L(p-S)PT
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	Preservative: 15mM Sodium Azide, Constituents: 1% BSA, 0.01M PBS, pH 7.4
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	HSF1 (Heat Shock Transcription Factor 1) is a Protein Coding gene. Diseases associated with HSF1 include Synucleinopathy and Amyotrophic Lateral Sclerosis 1. Among its related pathways are Cellular Senescence and Legionellosis. GO annotations related to this gene include transcription factor activity, sequence-specific DNA binding and

chromatin binding. An important paralog of this gene is HSF4.

Function:
DNA-binding protein that specifically binds heat shockpromoter elements (HSE) and activates transcription. In highereukaryotes, HSF is unable to bind to the HSE unless the cells areheat shocked.

Subunit:
Monomer. Under normal conditions, interacts with HSP90AA1in the HSP90 multichaperone complex; the interaction preventstrimerization and activation of HSF1. On activation by heat-stressor by other factors such as metal ions, HSF1 is released from thecomplex, homotrimerizes, is hyperphosphorylated and translocated tothe nucleus where, subsequently, it can activate transcription.Binds the complex through the regulatory domain. Interacts withSYMPK and CSTF2 in heat-stressed cells. Interacts with FKBP4 in theHSP90 multichaperone complex; the interaction is independent of thephosphorylation state of HSF1. Interacts with MAPKAPK2.

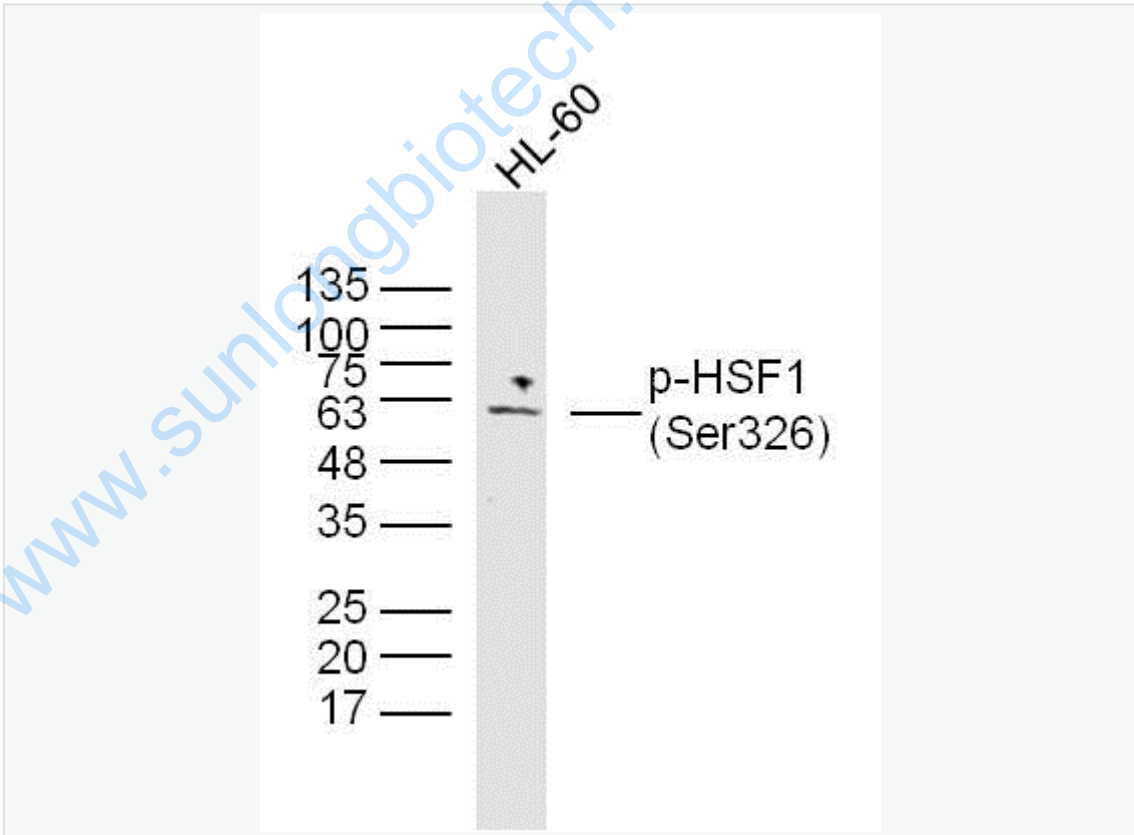
Subcellular Location:
Cytoplasm. Nucleus. Note=Cytoplasmic duringnormal growth. On activation, translocates to nuclear stressgranules. Colocalizes with SUMO1 in nuclear stress granules.

Post-translational modifications:
Phosphorylated on multiple serine residues, a subset of whichare involved in stress-related regulation of transcriptionactivation. Constitutive phosphorylation represses transcriptionalactivity at normal temperatures. Levels increase on specificresidues heat-shock and enhance HSF1 transactivation activity.Phosphorylation on Ser-307 derepresses activation on heat-stressand in combination with Ser-303 phosphorylation appears to beinvolved in recovery after heat-stress. Phosphorylated on Ser-230by CAMK2, in vitro. Cadmium also enhances phosphorylation at thissite. Phosphorylation on Ser-303 is a prerequisite for HSF1sumoylation. Phosphorylation on Ser-121 inhibits transactivationand promotes HSP90 binding. Phosphorylation on Thr-142 alsomediates transcriptional activity induced by heat.
Sumoylated with SUMO1 and SUMO2 on heat-shock. Heat-induciblesumoylation occurs after 15 min of heat-shock, after which levelsdecrease and at 4 hours, levels return to control levels.Sumoylation has no effect on HSE binding nor on transcriptionalactivity. Phosphorylation on Ser-303 is a prerequisite forsumoylation.

Similarity:
Belongs to the HSF family.

SWISS:
Q00613

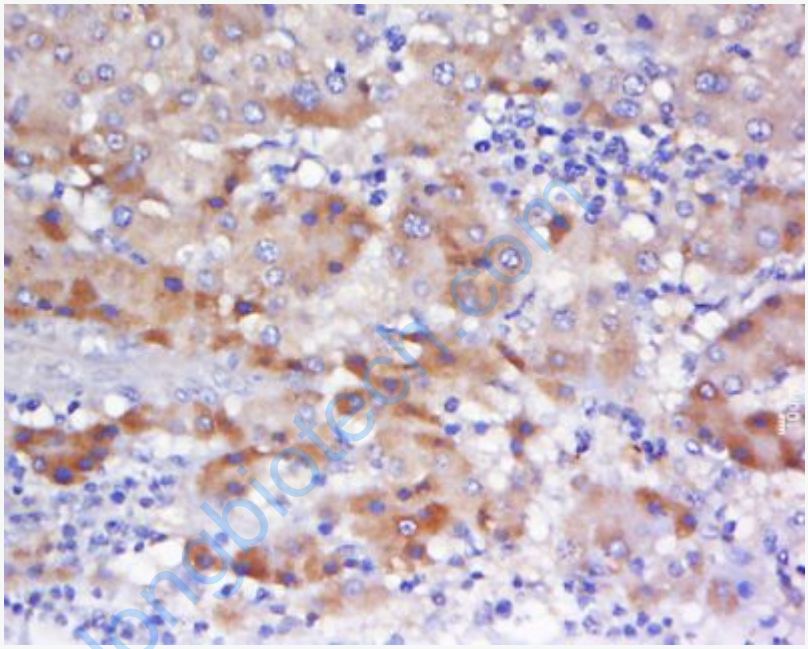
Gene ID:
3297

	Database links: Entrez Gene: 3297 Human Omim: 140580 Human SwissProt: Q00613 Human Unigene: 530227 Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Sample: HL-60 Cell (Human) Lysate at 30 ug Primary: Anti-p-HSF1 (Ser326) (SL3745R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 57 kD

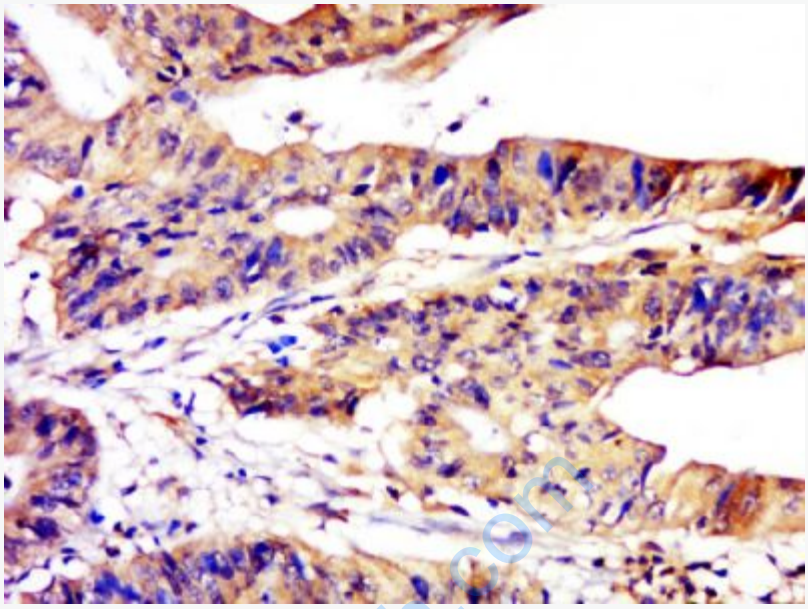
Observed band size: 57 kD



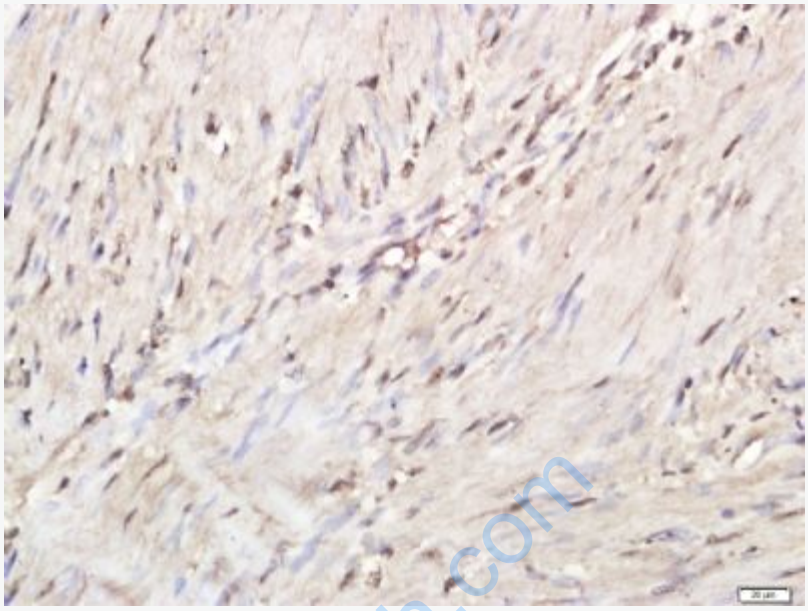
Tissue/cell: human liver carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

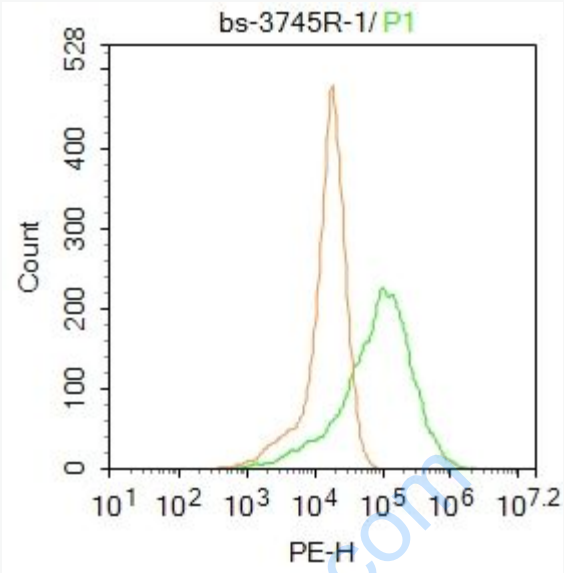
Incubation: Anti-phospho-HSF1(Ser326)Polyclonal Antibody, Unconjugated(SL3745R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (human cervical carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (p-HSF1) Polyclonal Antibody, Unconjugated (SL3745R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human neurinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-HSF1 (Ser326)) Polyclonal Antibody, Unconjugated (SL3745R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control: A549.

Primary Antibody (green line): Rabbit Anti-phospho-HSF1 (Ser326) antibody (SL3745R)

Dilution: 1µg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-PE

Dilution: 1µg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.