

## Product datasheet for TA384455M

### HSF1 Rabbit Monoclonal Antibody [Clone ID: R08-4I1]

#### Product data:

|                         |  |
|-------------------------|--|
| Product Type:           | Primary Antibodies   |
| Clone Name:             | R08-4I1  |
| Applications:           | IF, IHC, IP, WB  |
| Recommended Dilution:   | WB: 1/1000-1/5000<br>IHC: 1/20<br>ICC/IF: 1/500<br>IP: 1/20  |
| Reactivity:             | Human  |
| Host:                   | Rabbit   |
| Isotype:                | IgG  |
| Clonality:              | Monoclonal   |
| Immunogen:              | A synthetic phosphopeptide corresponding to residues surrounding Ser326 of human HSF1 (Phosphorylated) |
| Formulation:            | 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA                  |
| Concentration:          | lot specific   |
| Purification:           | Affinity Purified  |
| Conjugation:            | Unconjugated   |
| Storage:                | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.               |
| Stability:              | 1 year   |
| Predicted Protein Size: | Calculated MW: 57 kDa; Observed MW: 82 kDa   |
| Gene Name:              | heat shock transcription factor 1  |
| Database Link:          | <a href="#">Entrez Gene 3297 Human Q00613</a>  |


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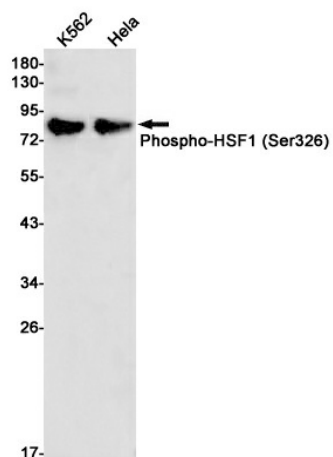
**Background:**

Swiss-Prot Acc.Q00613.Function as a stress-inducible and DNA-binding transcription factor that plays a central role in the transcriptional activation of the heat shock response (HSR), leading to the expression of a large class of molecular chaperones heat shock proteins (HSPs) that protect cells from cellular insults' damage (PubMed:1871105, PubMed:11447121, PubMed:1986252, PubMed:7760831, PubMed:7623826, PubMed:8946918, PubMed:8940068, PubMed:9341107, PubMed:9121459, PubMed:9727490, PubMed:9499401, PubMed:9535852, PubMed:12659875, PubMed:12917326, PubMed:15016915, PubMed:25963659, PubMed:26754925). In unstressed cells, is present in a HSP90-containing multichaperone complex that maintains it in a non-DNA-binding inactivated monomeric form (PubMed:9727490, PubMed:11583998, PubMed:16278218). Upon exposure to heat and other stress stimuli, undergoes homotrimerization and activates HSP gene transcription through binding to site-specific heat shock elements (HSEs) present in the promoter regions of HSP genes (PubMed:1871105, PubMed:1986252, PubMed:8455624, PubMed:7935471, PubMed:7623826, PubMed:8940068, PubMed:9727490, PubMed:9499401, PubMed:10359787, PubMed:11583998, PubMed:12659875, PubMed:16278218, PubMed:25963659, PubMed:26754925). Activation is reversible, and during the attenuation and recovery phase period of the HSR, returns to its unactivated form (PubMed:11583998, PubMed:16278218). Binds to inverted 5'-NGAAN-3' pentamer DNA sequences (PubMed:1986252, PubMed:26727489). Binds to chromatin at heat shock gene promoters (PubMed:25963659). Plays also several other functions independently of its transcriptional activity. Involved in the repression of Ras-induced transcriptional activation of the c-fos gene in heat-stressed cells (PubMed:9341107). Positively regulates pre-mRNA 3'-end processing and polyadenylation of HSP70 mRNA upon heat-stressed cells in a symplekin (SYMPK)-dependent manner (PubMed:14707147). Plays a role in nuclear export of stress-induced HSP70 mRNA (PubMed:17897941). Plays a role in the regulation of mitotic progression (PubMed:18794143). Plays also a role as a negative regulator of non-homologous end joining (NHEJ) repair activity in a DNA damage-dependent manner (PubMed:26359349). Involved in stress-induced cancer cell proliferation in a IER5-dependent manner (PubMed:26754925).

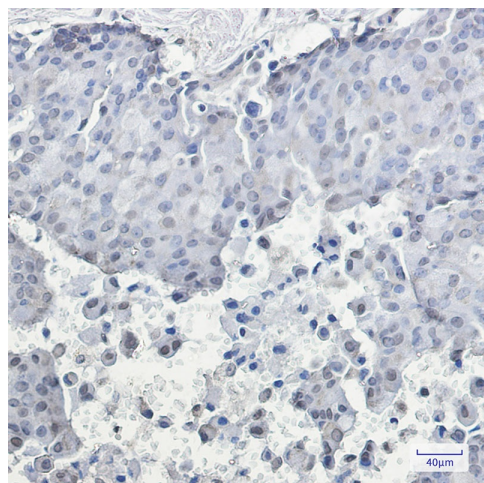
**Synonyms:**

HSTF1

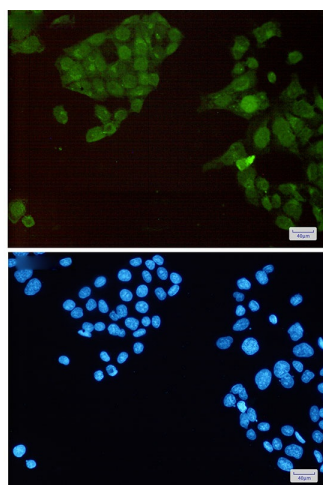
## Product images:



Western blot analysis of Phospho-HSF1 (Ser326) in K562, HeLa lysates using Phospho-HSF1 (Ser326) antibody.



Immunohistochemistry analysis of paraffin-embedded Human breast cancer using HSF1 (Phospho-Ser326) antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Immunocytochemistry analysis of HSF1 (Phospho-Ser326)(green) in HeLa using HSF1 (Phospho-Ser326) antibody, and DAPI(blue)