

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse HSF1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human HSF2 or recombinant mouse HSF4 is observed.                                                                                                                               |
| <b>Source</b>             | Monoclonal Rat IgG <sub>2A</sub> Clone # 744509                                                                                                                                                                                                                             |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant mouse HSF1<br>Thr124-Tyr247<br>Accession # P38532                                                                                                                                                                                       |
| <b>Conjugate</b>          | Alexa Fluor 750<br>Excitation Wavelength: 749 nm<br>Emission Wavelength: 775 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

Heat Shock Factor 1 (HSF1) is a 75-80 kDa constitutively expressed protein that functions as a transcriptional regulator under heat shock conditions. Heat stress induces the serine hyperphosphorylation, sumoylation, trimerization, and translocation of HSF1 to the nucleus. Nuclear HSF1 binds to heat shock elements (HSE) and promotes the transcription of genes important in cell protection from heat stress. Mouse HSF1 contains a DNA binding domain (aa 16-120), two hydrophobic oligomerization motifs (aa 137-212 and aa 378-407), a regulatory domain (aa 221-310), and a transactivation domain (aa 367-525). Alternate splicing of mouse HSF1 generates a short isoform that lacks 22 amino acids of the transactivation domain. Within aa 124-247, mouse HSF1 shares 94% and 99% aa sequence identity with human and rat HSF1, respectively.

## PRODUCT SPECIFIC NOTICES

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