

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse HSF1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human HSF2 or recombinant mouse HSF4 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 744509
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse HSF1 Thr124-Tyr247 Accession # P38532
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

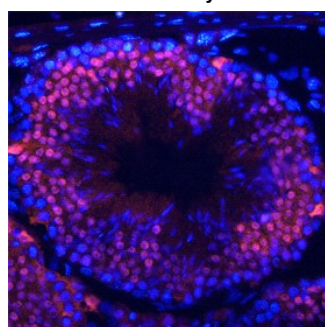
APPLICATIONS

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.

	Recommended Concentration	Sample
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



HSF1 in Mouse Testis. HSF1 was detected in perfusion fixed frozen sections of mouse testis using Rat Anti-Mouse HSF1 Monoclonal Antibody (Catalog # MAB7130) at 25 µg/mL overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to nuclei of spermatozoa. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.