Anti-HSF1 Antibody [4D-5F]

EM1706-45



Product Type: Mouse monoclonal IgG2b, primary antibodies

Species reactivity: Human

Applications: WB, IF-Cell, IHC-P

Molecular Wt: 57 kDa
Clone number: 4D-5F

Description: Prokaryotic and eukaryotic cells respond to thermal and chemical stress by inducing a group

of genes collectively designated heat shock genes. In eukaryotes, this gene expression is regulated primarily at the transcription level. Heat shock transcription factors 1 and 2 (HSF1 and HSF2), also designated HSTF1 and HSTF2, are involved in this regulation. HSF1 and HSF2 are upregulated by estrogen at both the mRNA and protein level. HSF1 is normally found as a monomer, whose transcriptional activity is repressed by constitutive phosphorylation. Upon activation, HSF1 forms trimers, gains DNA binding activity and is translocated to the nucleus. HSF2 activity is associated with differentiation and development and, like HSF1, binds DNA as a trimer. Both HSF1 and HSF2 are known to be induced by

proteasome inhibitors of the ubiquitin pathway

Immunogen: Recombinant protein

Positive control: Human HSF1 recombinant protein, HSF1-hlgGFc transfected HEK293 cell lysate, A431,

human rectum cancer tissue.

Subcellular location: Nucleus, cytoplasm.

Database links: SwissProt: Q00613 Human

Recommended Dilutions:

WB 1:500-1:2,000 IF-cell 1:50-1:200 IHC-P 1:50-1:200

Storage Buffer: Purified antibody in PBS with 0.05% sodium azide.

Storage Instruction: 4° ; -20° for long term storage.

Purity: Protein A affinity purified.

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Images

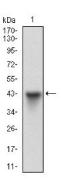


Fig1: Western blot analysis of HSF1 on human HSF1 recombinant protein using anti-HSF1 antibody at 1/1,000 dilution.

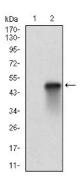


Fig2: Western blot analysis of HSF1 on HEK293 (1) and HSF1-hlgGFc transfected HEK293 (2) cell lysate using anti-HSF1 antibody at 1/1,000 dilution.

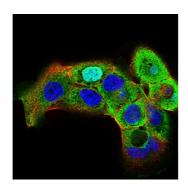


Fig3: ICC staining HSF1 (green) and Actin filaments (red) in A431 cells. The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

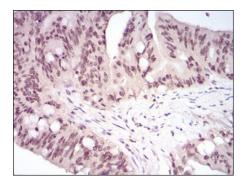


Fig4: Immunohistochemical analysis of paraffin-embedded human rectum cancer tissue using anti-HSF1 antibody. Counter stained with hematoxylin.

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Takii R et al. ATF1 modulates the heat shock response by regulating the stress-inducible heat shock factor 1 transcription complex. Mol Cell Biol 35:11-25 (2015).
- 2. Aguilà M et al. Hsp90 inhibition protects against inherited retinal degeneration. Hum Mol Genet 23:2164-75 (2014).