Data Sheet (Cat.No.TMAY-02296)

TargetMol

Anti-HSF1 Antibody (7F827)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	7F827
Purification:	Protein A

Applications

Verified Activity:	1. Immunochemical staining of human HSF1 in human tonsil with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections). 2. Immunochemical staining of human HSF1 in human placenta with rabbit monoclonal antibody (1:200, formalin-fixed paraffin embedded sections). 3. Immunofluorescence staining of Human HSF1 in Hela cells. Cells were fixed with 4% PFA, permeabilzed with 0.3% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-Human HSF1 monoclonal antibody (1:60) at 4°C overnight. Then cells were stained with the Alexa Fluor® 549-conjugated Goat Anti-rabbit IgG secondary antibody (red).
Application:	ELISA,ICC/IF,IHC-P
Recommended	ELISA: 1:5000-1:10000; IHC-P: 1:100-1:500; ICC-IF: 1:20-1:100

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human HSF1 protein (TMPY-02072)
Antigen Species:	Human
Synonyms:	heat shock transcription factor 1;HSTF1

Research Background

Heat shock factor protein 1, also known as heat shock transcription factor 1, HSF1, and HSTF1, is a cytoplasm and nucleus protein that belongs to the HSF family. HSF1 is the major transcription factor of HSPs (heat shock proteins) in response to various stresses. Wild type HSF1 (heat shock transcriptional factor 1) is normally inactive. HSF1 / HSTF1 is a DNA-binding protein that specifically binds heat shock promoter elements (HSE) and activates transcription. In higher eukaryotes, HSF is unable to bind to the HSE unless the cells are heat shocked. HSF1 / HSTF1 protects cells and organisms against various types of stress, either by triggering a complex response that promotes cell survival or by triggering cell death when stress-induced alterations cannot be rescued. HSF1 / HSTF1 is the key protein in regulating the stress response. It can be activated under heat, oxidative, or other stress conditions. Dominant-positive and dominant-negative HSF1 are two types of HSF1 mutants. Both of them gain DNA binding activity in the absence of stress. Also, dominant-positive HSF1 acquires transcriptional activity, which dominant-negative HSF1 does not acquire. HSF1 / HSTF1 was also reported to contribute to cell resistance against genotoxic stress, such as

that caused by doxorubicin, an anticancer drug in common clinical use.

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