

Mouse Anti-Heat Shock Protein (HSP70)/HSC70 [W27]: MC0672, MC0672RTU7

Intended Use: For Research Use Only

Description: The HSP 70 family is composed of four highly conserved proteins: HSP 70, HSC 70, GRP 75 and GRP 78. These proteins serve a variety of roles: they act as molecular chaperones facilitating the assembly of multi-protein complexes, participate in the translocation of polypeptides across cell membranes and to the nucleus and aid in the proper folding of nascent polypeptide chains. All members of the family, except HSP 70, are constitutively expressed in primate cells. HSP 70 expression is strongly induced in response to heat stress. HSP 70 and HSC 70 play key roles in the cytosolic endoplasmic reticulum and mitochondrial import machinery and are found in both the cytosol and nucleus of mammalian cells. Both HSP 70 and HSC 70 are involved in the chaperoning of nascent polypeptide chains and in protecting cells against the accumulation of improperly folded proteins. GRP 78 is localized in the endoplasmic reticulum, where it receives imported secretory proteins and is involved in the folding and translocation of nascent peptide chains. GRP 75 expression is restricted to the mitochondrial matrix and aids in the translocation and folding of nascent polypeptide chains of both nuclear and mitochondrial origin. GRP 75 and GRP 78 are unresponsive to heat stress and are induced by glucose deprivation. It has been postulated that members of the HSP 70 family act as force-generating motors, relying on the hydrolysis of ATP for their activity.

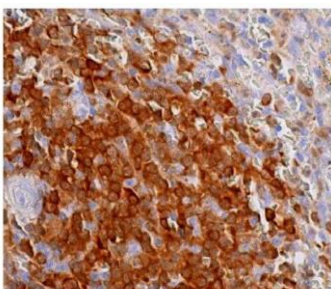
Specifications:

Clone: W27
Source: Mouse
Isotype: IgG2a
Reactivity: Human, mouse, rat
Localization: Cytoplasm, nucleus
Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
Storage: Store at 2°- 8°C
Applications: IHC, Flow Cyt., IF, IP, WB
Package:

Description	Catalog No.	Size
Heat Shock Protein (HSP70)/HSC70 Concentrated	MC0672	1 ml
Heat Shock Protein (HSP70)/HSC70 Prediluted	MC0672RTU7	7 ml

IHC Procedure*:

Positive Control Tissue: Breast cancer
Concentrated Dilution: 25-200
Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
Incubation Time and Temp: 30-60 minutes @ RT
Detection: Refer to the detection system manual
* Result should be confirmed by an established diagnostic procedure.



FFPE human spleen stained with anti-HSP70 using DAB

References:

1. Diagnostic Value of Glypican3, Heat Shock Protein 70 and Glutamine Synthetase in Hepatocellular Carcinoma Arising in Cirrhotic and Non-Cirrhotic Livers. Uthamalingam P, et al. J Clin Exp Hepatol 8:173-180, 2018.

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