

**Mouse Anti-Heat Shock Protein (HSP90) [MD109]: MC0409, MC0409RTU7**

**Intended Use:** For Research Use Only

**Description:** The heat shock response was first described for *Drosophila* salivary gland cells and morphologically consists of a change in their polytene chromosome puffing patterns that involves de novo synthesis of a few proteins. Similar heat shock proteins were later discovered in bacterial chicken and mammalian cells, and have been subsequently studied in other organisms. A series of proteins, including HSP 90, HSP 70, HSP 20-30 and ubiquitin, are induced by insults such as temperature shock, chemicals and other environmental stress. A major function of HSP 90 and other HSPs is to act as molecular chaperones. HSP 90 forms a complex with glucocorticoid receptor (GR), rendering the non ligand-bound receptor transcriptionally inactive. HSP 90 binds the GR as a heterocomplex composed of either HSP 56 or Cyclophilin D, forming an aporeceptor complex. HSP 90 also exists as a dimer with other proteins such as p60/STI1 and p23, forming an aporeceptor complex with estrogen and androgen receptors.

**Specifications:**

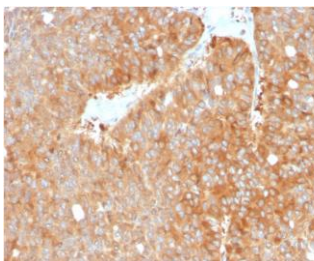
Clone: MD109  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human  
 Immunogen: Recombinant human HSP90 protein fragment aa581-704  
 Localization: Cytoplasm  
 Formulation: Purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, WB  
 Package:

Description	Catalog No.	Size
Heat Shock Protein (HSP90) Concentrated	MC0409	1 ml
Heat Shock Protein (HSP90) Prediluted	MC0409RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Spleen, stomach or pancreas tissue, MCF-7 cells  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris EDTA pH9.0, 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 pancreas stained with anti-HSP90 using DAB

**References:**

1. The Carbon monoxide releasing molecule ALF-186 mediates anti-inflammatory and neuroprotective effects via the soluble guanylate cyclase β1 in rats' retinal ganglion cells after ischemia and reperfusion injury. Ulbrich F, et al. *J Neuroinflammation* 14:130, 2017.
2. Changes in the expression of Heat Shock Proteins in ovaries from bovines with cystic ovarian disease induced by ACTH. Velázquez MM, et al. *Res Vet Sci* 95:1059-67, 2013.
3. Characterization of the constitutive pig ovary heat shock chaperone machinery and its response to acute thermal stress or to seasonal variations. Pennarossa G, et al. *Biol Reprod* 87:119, 2012.

Doc. 100-MC0409  
Rev. A