

## HSP70 Mouse Monoclonal Antibody (3G10)

Catalog No.: RA10235

### Basic Information

#### Information

Reactivity	H,M,R,Pg
Immunogen	Synthetic Peptide
Host	Mouse
Isotype	IgG1
Storage Buffer & Condition	1mg/ml in PBS, pH 7.4, containing 0.02% sodium azide and 50% glycerol.
Observed MW	70KD

#### Applications

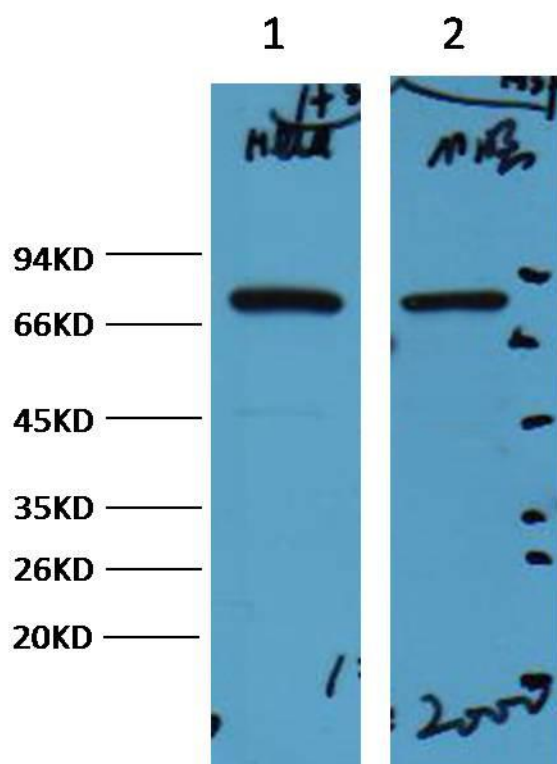
#### Recommended Dilution

WB	1:1,000-2,000
IHC	1:200-500
IF	1:100-200

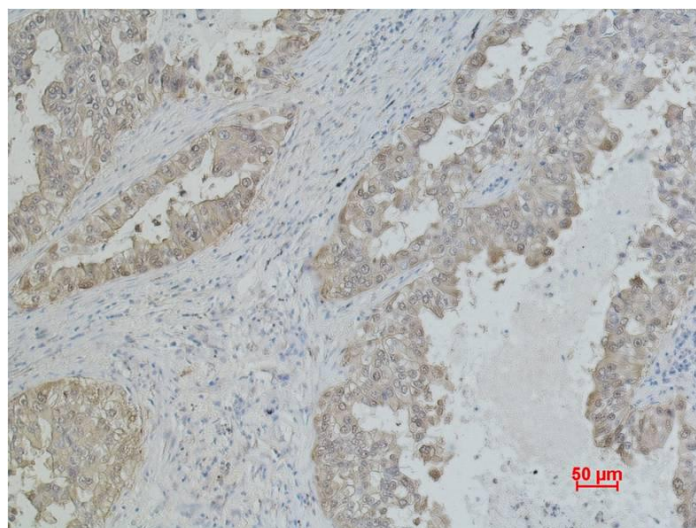
#### Preparation & Storage

Storage	Store at -20°C. Stable for one year from the date of shipment.
Shipping	Bule Ice

## Experimental Data



Western blot analysis of Pig Skeletal Muscle with HSP70 mAb diluted at 1:2,000.



Immunohistochemical analysis of paraffin-embedded Human Lung carcinoma using HSP70 Mouse mAb diluted at 1:500.

## Background

The 70 kilodalton heat shock proteins (Hsp70s) are a family of ubiquitously expressed heat shock proteins. Proteins with similar structure exist in virtually all living organisms. The Hsp70s are an important part of the cell's machinery for protein folding, and help to protect cells from stress. Hsp70 is usually in an ATP bound state. Hsp70 by itself is characterized by a very weak ATPase activity, such that spontaneous hydrolysis will not occur for many minutes. As newly synthesized proteins emerge from the ribosomes, the substrate binding domain of Hsp70 recognizes sequences of hydrophobic amino acid residues, and interacts with them. This spontaneous interaction is reversible, and in the ATP bound state Hsp70 may relatively freely bind and release peptides. However, the presence of a peptide in the binding domain stimulates the ATPase activity of Hsp70, increasing its normally slow rate of ATP hydrolysis.