



## Monoclonal Antibody to Heat Shock Protein (HSP-70)

### Technical Data Sheet

#### Reagent Category

Monoclonal primary antibody to HSP-70

#### Specific Reagents Supplied

- 5 ml of anti HSP-70, Ready-To-Use
- 0.2 ml of anti HSP-70, Concentrate

PRODUCT# IMI24161E (Ready-To-Use)

PRODUCT# IMI24152E (Concentrate)

**SOURCE:** Mouse

**IMMUNOGLOBULIN ISOTYPE:** IgG1

**POSITIVE CONTROL TISSUE:** Breast carcinoma

**CLONE:** 8B11

#### **INTRODUCTION**

Mammalian cells in culture are normally grown at 37°C, if they are briefly heat shocked by the raise in temperature; they begin to synthesize a series of polypeptides known as Heat -shock proteins or stress-response proteins. These proteins are also synthesized in response to other harmful treatments and they seem to assist in cell survival. Heat shock proteins help to solubilize and refold denatured or misfolded proteins.

#### **SPECIFICITY**

Heat shock protein 70 (HSP70) binds to selected proteins including abnormal protein complexes and aggregates, from which they can be released by the addition of ATP. The solubilization and folding of aggregated and misfolded proteins is assisted by cycles of ATP binding and hydrolysis. HSP70 is synthesized in both prokaryotic and eukaryotic cells.

#### **REACTIVITY**

HSP70 antibody recognizes a family of 70 kD stress proteins that include HSP73, HSP72 and the glucose regulated protein grp78 and gp75. This antibody recognizes HSP-70 of human, bovine, rabbit, rat, chicken and guinea pig. It also recognizes the HSP70 in drosophila cell extract and human fibroblast cell extract.

#### **PRODUCT FORMATS, DILUTION and INCUBATION**

Monoclonal anti HSP70 mouse ascites antibody is provided in phosphate buffered saline pH 7.4 containing bovine serum albumin and 0.1% sodium azide. This antibody is available in:

- 5 ml of pre-diluted, ready- to- Use, Incubate for 20-30 minutes. This antibody best stains when formalin fixed paraffin embedded sections are retrieved.**

*For Background-Free and easy retrieval, Innovex Uni-Trieve (60°-70°C) universal retrieval solution is highly recommended. To retrieve with Uni-Trieve: Warm up a water bath to 60°-70°C and fill a slide holding container with Uni-Trieve solution. Place slides in a slide rack and immerse slides in a vessel or a coplin jar containing the solution, bring the solution and slides to 60°-70°C and let slides incubate at 60°-70°C for 30 minutes. Rinse slides with 2 quick changes of water; No cooling period is required. Proceed with immunostaining.*

- 0.2 ml of Concentrate: 0.5 ml of Concentrate: dilute 1:50 for 30-minute for paraffin sections and 1:100 for frozen sections. For longer incubation time the working titer should be determined by the end user. This antibody best stains when formalin fixed paraffin embedded sections are retrieved.**

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## APPLICATIONS

This antibody is intended for use in immunolocalization of HSP-70 in human, bovine, rabbit, chicken and guinea pig by a variety of immunoassays such as Immunochemistry, ELISA, Immunoblotting and dot blotting. In immunochemistry, this antibody can be used in staining routinely fixed paraffin embedded or frozen histological sections for the purpose of qualitative localization of HSP70 antigens. This antibody can also be used for quantitative flow cytometric assays in the indirect method.

## SPECIES REACTIVITY

The reactive of this HSP70 antibody is characterized for human, bovine, rabbit, chicken and guinea pig. Other species reactivity needs to be substantiated by the end user.

## STORAGE CONDITIONS

Store in refrigerator at 2-8°C through expiration date noted on the vial.

## IMPORTANT NOTE:

The interpretation of test results is the sole responsibility of the end user.

***FOR PROFESSIONAL AND RESEARCH USE ONLY***