

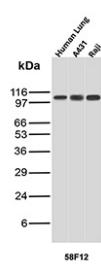
## HSPH1 Antibody / Heat shock protein 105 kDa [clone r58F12] (V5854)

Catalog No.	Formulation	Size
V5854-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5854-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5854SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

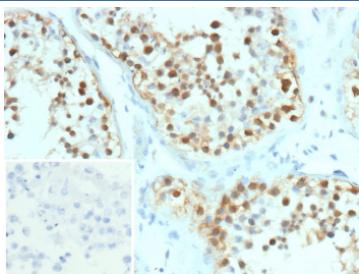
Recombinant **MOUSE MONOCLONAL**

**Bulk quote request**

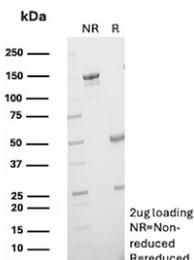
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	r58F12
UniProt	Q92598
Localization	Cytoplasm, Nucleus
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This HSPH1/Heat shock protein 105 kDa antibody is available for research use only.



Western blot analysis of human lung tissue, A431 cells, and Raji cells using HSPH1 antibody (clone r58F12). A prominent band is observed at the expected apparent molecular weight for Heat shock protein 105 kDa across all samples analyzed. Although the predicted molecular weight of HSPH1 is approximately 97 kDa based on sequence analysis, the protein commonly migrates at a higher apparent molecular weight on SDS-PAGE, consistent with its known biochemical properties and chaperone structure.



Immunohistochemistry analysis of formalin-fixed, paraffin-embedded human testis tissue using HSPH1 antibody (clone r58F12). Nuclear and cytoplasmic staining is observed in a subset of testicular cells, with granular signal present in both compartments and minimal background staining in surrounding stromal elements. Nuclei are counterstained in blue. Inset shows PBS substituted for the primary antibody as a secondary-only negative control. Heat-induced antigen retrieval was performed by heating tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0, for 45 minutes at 95°C, followed by cooling at room temperature for 20 minutes.



SDS-PAGE Analysis of Purified HSPH1 antibody (clone r58F12). Confirmation of Purity and Integrity of Antibody.

## Description

HSPH1 antibody is used to study Heat shock protein 105 kDa, a molecular chaperone involved in cellular stress responses and protein homeostasis. Heat shock protein 105 kDa is encoded by the HSPH1 gene and belongs to the HSP110 family of heat shock proteins, which function as nucleotide exchange factors for HSP70 chaperones. Through this activity, Heat shock protein 105 kDa supports protein folding, prevents aggregation of misfolded proteins, and helps maintain proteostasis under conditions of cellular stress.

Heat shock protein 105 kDa is also commonly referred to as HSP105 or HSP110 in the literature, reflecting its classification within the high-molecular-weight heat shock protein family. Unlike smaller heat shock proteins, HSPH1 exhibits strong ATP-dependent chaperone activity and plays an important role in stabilizing denatured proteins during heat shock and other stress conditions. Use of an HSPH1 antibody enables investigation of these stress-responsive chaperone functions in cell and tissue-based research models.

At the subcellular level, Heat shock protein 105 kDa localizes primarily to the cytoplasm, where it associates with protein complexes involved in folding and quality control. Under stress conditions, redistribution of HSPH1 has been reported, reflecting dynamic engagement with unfolded protein substrates. Studies using HSPH1 antibody have contributed to understanding how cells adapt to environmental stressors and maintain protein integrity through coordinated chaperone networks.

Altered expression of Heat shock protein 105 kDa has been examined in cancer biology and stress adaptation studies, where increased HSPH1 levels are often associated with enhanced cellular survival under proteotoxic stress. In tumor-derived cells, elevated HSPH1 expression is thought to support malignant growth by buffering protein-folding stress and stabilizing oncogenic signaling proteins. Detection of HSPH1 using an HSPH1 antibody supports research into stress tolerance, protein quality control, and cellular adaptation mechanisms in disease-associated contexts.

HSPH1 antibody (clone r58F12) is designed to detect Heat shock protein 105 kDa in research applications. Analysis of HSPH1 expression provides insight into chaperone-mediated protein folding, stress response pathways, and proteostasis regulation. Heat shock protein 105 kDa remains a key component of cellular defense mechanisms that protect against protein misfolding and stress-induced damage.

## Application Notes

1. Optimal dilution of the HSPH1/Heat shock protein 105 kDa antibody should be determined by the researcher.

2. This HSPH1/Heat shock protein 105 kDa antibody is recombinantly produced by expression in CHO cells.

## Immunogen

Prokaryotic recombinant protein of 31 kD corresponding to the C-terminus of the heat shock protein 105 molecule was used as the immunogen for the HSPH1/Heat shock protein 105 kDa antibody.

## Storage

HSPH1/Heat shock protein 105 kDa antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.