

For Research Use Only

# HSPA2 Recombinant antibody, PBS Only (Capture)

Catalog Number: 83466-1-PBS

Featured Product



## Basic Information

|  |   |   |
|--|---|---|
| <b>Catalog Number:</b><br>83466-1-PBS                      | <b>GenBank Accession Number:</b><br>BC036107    | <b>Purification Method:</b><br>Protein A purification |
| <b>Size:</b><br>100ug, Concentration: 1 mg/ml by Nanodrop; | <b>GeneID (NCBI):</b><br>3306                   | <b>CloneNo.:</b><br>240421A2                          |
| <b>Source:</b><br>Rabbit                                   | <b>UNIPROT ID:</b><br>P54652                    |   |
| <b>Isotype:</b><br>IgG                                     | <b>Full Name:</b><br>heat shock 70kDa protein 2 |   |
| <b>Immunogen Catalog Number:</b><br>AG3539                 | <b>Calculated MW:</b><br>639 aa, 70 kDa         |   |
|  | <b>Observed MW:</b><br>70 kDa                   |   |

## Applications

**Tested Applications:**  
WB, IHC, Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human, mouse

## Product Information

83466-1-PBS targets HSPA2 as part of a matched antibody pair:

MP00465-1: 83466-1-PBS capture and 83466-3-PBS detection (validated in Cytometric bead array, Sandwich ELISA)

MP00465-2: 83466-1-PBS capture and 83466-2-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## Background Information

Human HSPA2 is a member of the HSPA (HSP70) family of heat-shock proteins, encoded by the gene originally described as testis-specific. Recently, it has been reported that HSPA2 can be also expressed in human somatic tissues in a cell-type specific manner. HSPA2 is a cytosol/nuclear protein able to translocate between cytoplasm and nucleus. At physiological temperature, the HSPA2 was localized primarily in cytoplasm whereas, during heat shock, localization shifted to nucleus and nucleoli (PMID: 18452162). HSPA2 is involved in sperm maturity, function and fertility. Aberrant expression of HSPA2 in testes has been connected with male infertility. Recently, HSPA2 has attracted increased interest due to its possible involvement in carcinogenesis of non-testicular tissues. This antibody well recognized the endogenous HSPA2 protein in testis and multiple cell lines. (21373891)

## Storage

**Storage:**  
Store at -80°C.  
**Storage Buffer:**  
PBS Only

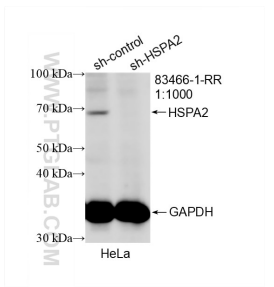
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

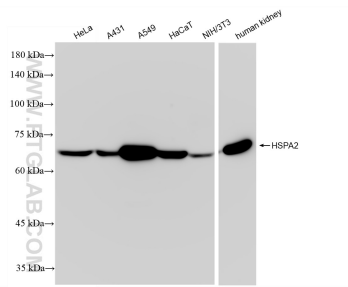
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

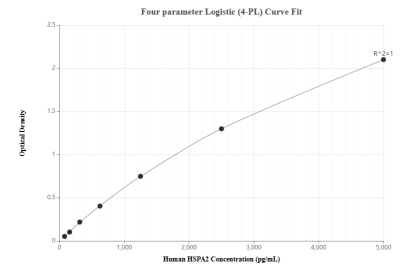
## Selected Validation Data



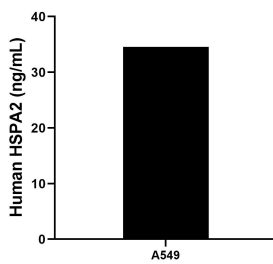
WB result of HSPA2 antibody (83466-1-RR; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-HSPA2 transfected HeLa cells. This data was developed using the same antibody clone with 83466-1-PBS in a different storage buffer formulation.



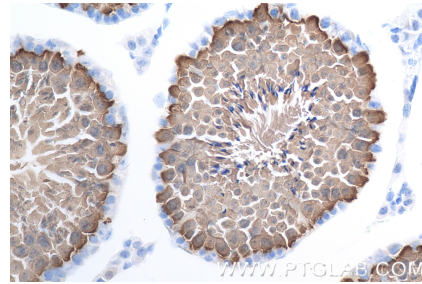
Various lysates were subjected to SDS PAGE followed by western blot with 83466-1-RR (HSPA2 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83466-1-PBS in a different storage buffer formulation.



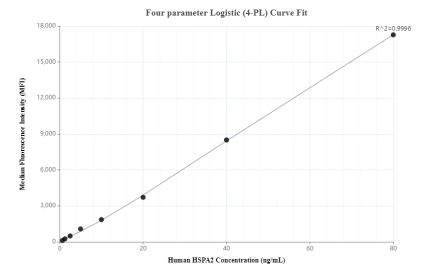
Sandwich ELISA standard curve of MP00465-1, Human HSPA2 Recombinant Matched Antibody Pair - PBS only. 83466-1-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag3539. 83466-3-PBS was HRP conjugated as the detection antibody. Range: 78.1-5000 pg/mL



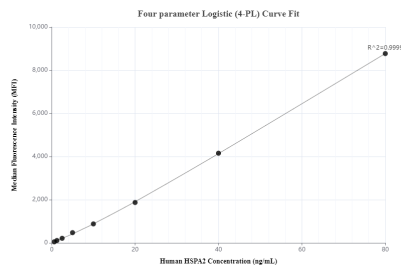
The mean HSPA2 concentration was determined to be 34.57 ng/mL in A549 cell extract based on a 2.5 mg/mL extract load.



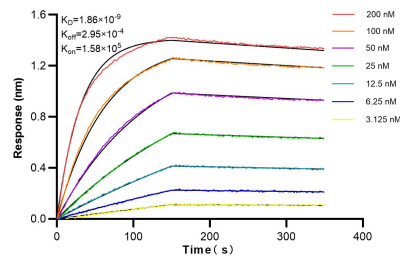
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 83466-1-RR (HSPA2 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83466-1-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP00465-1, HSPA2 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83466-1-PBS. Detection antibody: 83466-3-PBS. Standard: Ag3539. Range: 0.625-80 ng/mL.



Cytometric bead array standard curve of MP00465-2, HSPA2 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83466-1-PBS. Detection antibody: 83466-2-PBS. Standard: Ag3539. Range: 0.625-80 ng/mL



Biolayer interferometry (BLI) kinetic assays of 83466-1-RR against Human HSPA2 were performed. The affinity constant is 1.86 nM.