Product Name: **KD-Validated HSPA5 Recombinant Rabbit Monoclonal Antibody**
Catalog #: **KVAb01519**
For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 72.3kDa

Antigen Information

Gene Name	HSPA5
Alternative Names	HSPA5; Heat Shock Protein Family A (Hsp70) Member 5; GRP78; Heat Shock 70kDa Protein 5 (Glucose-Regulated Protein, 78kDa); Immunoglobulin Heavy Chain-Binding Protein; Heat Shock Protein 70 Family Protein 5; Heat Shock Protein Family A Member 5; Endoplasmic Reticulum Chaperone BiP; Glucose-Regulated Protein, 78kDa; 78 KDa Glucose-Regulated Protein; Binding-Immunoglobulin Protein; HSP70 Family Protein 5; BiP; BIP; Heat Shock 70kD Protein 5 (Glucose-Regulated Protein, 78kD); Endoplasmic Reticulum Lumenal Ca(2+)-Binding; Protein Grp78; Epididymis Secretory Sperm Binding Protein Li 89n; EC 3.6.4.10; HEL-S-89n; GRP-78
Gene ID	3309.0
SwissProt ID	P11021

Immunogen A synthesized peptide derived from human GRP78 BiP

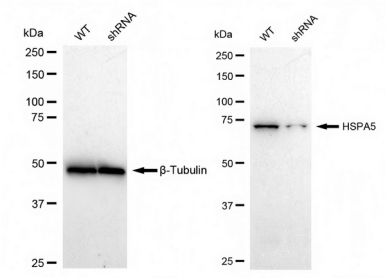
Background

The protein encoded by this gene is a member of the heat shock protein 70 (HSP70) family. This protein localizes to the lumen of the endoplasmic reticulum (ER) where it operates as a typical HSP70 chaperone involved in the folding and assembly of proteins in the ER and is a master regulator of ER homeostasis. During cellular stress, as during viral infection or tumorogenesis, this protein interacts with the transmembrane stress sensor proteins PERK (protein kinase R-like endoplasmic reticulum kinase), IRE1 (inositol-requiring kinase 1), and ATF6 (activating transcription factor 6) where it acts as a repressor of the unfolded protein response (UPR) and also plays a role in cellular apoptosis and senescence. Elevated expression and atypical translocation of this protein to the cell surface has been reported in viral infections and some types of cancer cells. At the cell surface this protein may facilitate viral attachment and entry to host cells. This gene is a therapeutic target for the treatment of coronavirus diseases and chemoresistant cancers. [provided by RefSeq, Jul 2020]

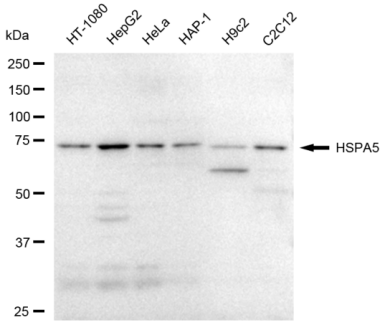
Research Area

Tags & Cell Markers

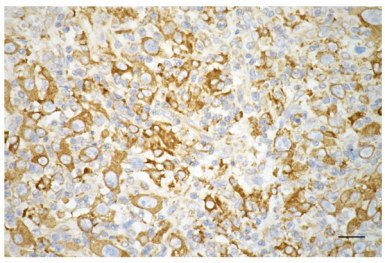
Image Data



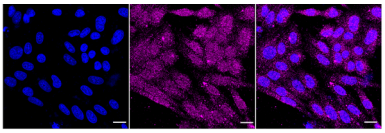
Western blotting analysis using HSPA5 antibody (KVAb01519). HSPA5 expression in wild type (WT) and HSPA5 shRNA knockdown (KD) 293T cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with HSPA5 antibody (KVAb01519, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



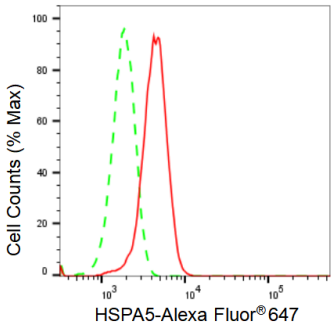
Western blotting analysis using HSPA5 antibody (KVAb01519). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with HSPA5 antibody (KVAb01519, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively. HSPA5, heat shock protein family A (Hsp70) member 5.



Immunohistochemistry was performed on paraffin-embedded human hepatocarcinoma using HSPA5 antibody (KVAb01519, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HepG2 cells with HSPA5 antibody (KVAb01519, 1:1,000). Nuclei were stained blue with DAPI; HSPA5 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μm.



Flow cytometric analysis of HSPA5 expression in HepG2 cells using HSPA5 antibody (KVAb01519, 1:2,000). Green, isotype control; red, HSPA5.