

## Product datasheet for CF815945

### GRP78 (HSPA5) Mouse Monoclonal Antibody [Clone ID: OTI13C2]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI13C2
Applications:	WB
Recommended Dilution:	WB 1:500
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment of Human HSPA5 (NP_005338) produced in Ecoli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Shipped at -20°C or with ice packs, Upon delivery store at -20°C. Dilute in PBS(pH7.3) if necessary. Stable for 12 months from date of receipt. Avoid repeated freeze-thaws.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	72.3 kDa
Gene Name:	heat shock protein family A (Hsp70) member 5
Database Link:	<a href="#">NP_005338</a> <a href="#">Entrez Gene 14828 Mouse</a> <a href="#">Entrez Gene 25617 Rat</a> <a href="#">Entrez Gene 3309 Human</a> <a href="#">P11021</a>


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**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 tumorigenesis, 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]

**Synonyms:**

BIP; GRP78; HEL-S-89n

**Protein Families:**

Druggable Genome

**Protein Pathways:**

Antigen processing and presentation, Prion diseases

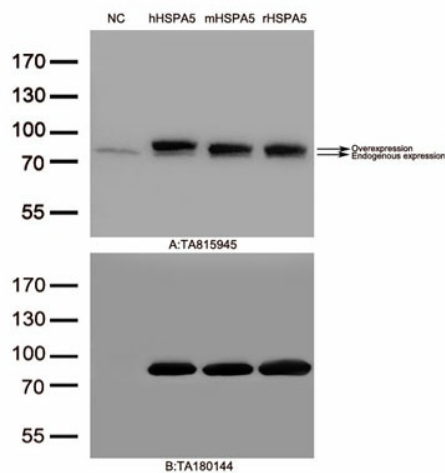
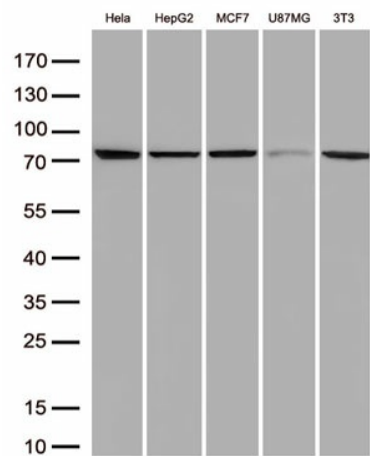
**Product images:**


Figure A, Western blot analysis of overexpressed lysates(15ug per lane) from HEK293T cells transfected with empty plasmid ([PS100001], NC) , human HSPA5 plasmid ([RC205859], hHSPA5), mouse HSPA5 plasmid ([MR209794], mHSPA5) , rat HSPA5 plasmid ([RR201826], rHSPA5) using anti-HSPA5 antibody [TA815945](1:500). Figure B, Western blot analysis of the same samples as figure A with anti-DDK antibody ([TA180144], 1:1000)



Western blot analysis of extracts (50ug per lane) from 5 cell lines lysates by using anti-HSPA5 monoclonal antibody([TA815945], 1:500)