Human HSPA5 Knockdown Cell Lysate

Cat. No. HSPA5-010HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated HSPA5 Knockdown 293T Cell Lysate
Species	Human
Source	293T
Description	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.
Form	Cell-Tissue Lysis buffer
Molecular Mass	72 kDa

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Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type 293T cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and equal amount of total proteins.
Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT 293T cell lysate 1 vial of 100 µg HSPA5 KD 293T cell lysate
Protein Families	Druggable Genome
Protein Pathways	Antigen processing and presentation, Prion diseases
Lysate QC	RT-qPCR; Western Blotting (WB)

GENE INFORMATION

Gene Name	HSPA5 heat shock protein family A (Hsp70) member 5 [Homo sapiens (human)]
Official Symbol	HSPA5
Synonyms	HSPA5; heat shock protein family A (Hsp70) member 5; BIP; GRP78; HEL-S-89n; endoplasmic reticulum chaperone BiP 78 kDa glucose-regulated protein HSP70 family protein 5 binding-immunoglobulin protein endoplasmic reticulum lumenal Ca(2+)-binding protein grp78 epididymis secretory sperm binding protein Li 89n glucose-regulated protein, 78kDa heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa) heat shock protein 70 family protein 5 heat shock protein family A

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	member 5 immunoglobulin heavy chain-binding protein EC 3.6.4.10
Gene ID	3309
mRNA Refseq	NM_005347
Protein Refseq	NP_005338
MIM	138120
UniProt ID	P11021

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