Heat Shock 70kDa Protein 5 (HSPA5) ELISA Kit for Cat

PRODUCT OVERVIEW

Product Name	Heat Shock 70Kda Protein 5 (HSPA5), ELISA Kit
Full Product Name	Cat Heat Shock 70Kda Protein 5 ELISA Kit
Product Gene Name	HSPA5 elisa kit
Species Reactivity	Cat
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	72,333 Da
Chromosome Location	Chromosome: 9; NC_000009.11 (127997127..128003666, complement). Location: 9q33.3
OMIM	138120
3D Structure	ModBase 3D Structure for P11021
Related Product Information for HSPA5 elisa kit	MBS099720 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Heat Shock 70Kda Protein 5 (HSPA5) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing HSPA5. The ELISA analytical biochemical technique of the MBS099720 kit is based on HSPA5 antibody-HSPA5 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect HSPA5 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, HSPA5. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of HSPA5 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for HSPA5. It may not necessarily be applicable to this product.

NCBI GI #	86577744
NCBI GeneID	3309
NCBI Accession #	AAI12964.1
UniProt Primary Accession #	P11021
UniProt Secondary Accession #	Q2EF78; Q9NPF1; Q9UK02; B0QZ61
UniProt Related Accession #	P11021
NCBI Official Full Name	HSPA5 protein
NCBI Official Synonym Full Names	heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa)
NCBI Official Symbol	HSPA5
NCBI Official Synonym Symbols	BIP; MIF2; GRP78
UniProt Protein Name	78 kDa glucose-regulated protein
UniProt Synonym Protein Names	Endoplasmic reticulum lumenal Ca(2+)-binding protein grp78; Heat shock 70 kDa protein 5; Immunoglobulin heavy chain-binding protein

UniProt Gene Name	HSPA5
UniProt Synonym Gene Names	GRP78; GRP-78; BiP
UniProt Entry Name	GRP78_HUMAN
NCBI Protein Information	78 kDa glucose-regulated protein; immunoglobulin heavy chain-binding protein; endoplasmic reticulum lumenal Ca(2+)-binding protein grp78
NCBI Summary for HSPA5	The protein encoded by this gene is a member of the heat shock protein 70 (HSP70) family. It is localized in the lumen of the endoplasmic reticulum (ER), and is involved in the folding and assembly of proteins in the ER. As this protein interacts with many ER proteins, it may play a key role in monitoring protein transport through the cell.[provided by RefSeq, Sep 2010]
UniProt Comments for HSPA5	GRP78: a member of the HSP family of molecular chaperones required for endoplasmic reticulum integrity and stress-induced autophagy. Plays a central role in regulating the unfolded protein response (UPR), and is an obligatory component of autophagy in mammalian cells. May play an important role in cellular adaptation and oncogenic survival. One of the client proteins of GRP78 is protein double-stranded RNA-activated protein-like endoplasmic reticulum kinase (PERK). Probably plays a role in facilitating the assembly of multimeric protein complexes inside the ER. Protein type: Heat shock protein; Chaperone Chromosomal Location of Human Ortholog: 9q33.3 Cellular Component: signalosome; endoplasmic reticulum membrane; focal adhesion; smooth endoplasmic reticulum; cell surface; mitochondrion; endoplasmic reticulum; endoplasmic reticulum lumen; ER-Golgi intermediate compartment; membrane; melanosome; plasma membrane; integral to endoplasmic reticulum membrane; midbody; nucleus Molecular Function: protein domain specific binding; protein binding; enzyme binding; chaperone binding; ubiquitin protein ligase binding; ATPase activity; unfolded protein binding; ribosome binding; calcium ion binding; misfolded protein binding; glycoprotein binding; ATP binding Biological Process: platelet activation; ER-associated protein catabolic process; cerebellum structural organization; unfolded protein response; cerebellar Purkinje cell layer development; cellular response to glucose starvation; cellular protein metabolic process; substantia nigra development; unfolded protein response, activation of signaling protein activity; platelet degranulation; positive regulation of protein ubiquitination; negative regulation of transforming growth factor beta receptor signaling pathway; blood coagulation; ER overload response; positive regulation of cell migration; negative regulation of apoptosis
Research Articles on HSPA5	**1.** BiP could upregulate mRNA transcription level and protein expression level of IRE1a.
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