Human PSME1 Knockdown Cell Lysate

Cat. No. PSME1-407HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated PSME1 Knockdown HeLa Cell Lysate
Species	Human
Source	HeLa
Description	The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 alpha subunits and 2 rings are composed of 7 beta subunits. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase subunits. Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. The immunoproteasome contains an alternate regulator, referred to as the 11S regulator or PA28, that replaces the 19S regulator. Three subunits (alpha, beta and gamma) of the 11S regulator have been identified. This gene encodes the alpha subunit of the 11S regulator, one of the two 11S subunits that is induced by gamma-interferon. Three alpha and three beta subunits combine to form a heterohexameric ring. Alternative splicing results in multiple transcript variants.
Form	Cell-Tissue Lysis buffer

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Molecular Mass	29 kDa
Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HeLa 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 HeLa cell lysate 1 vial of 100 µg PSME1 KD HeLa cell lysate
Protein Pathways	Antigen processing and presentation, Proteasome
Lysate QC	RT-qPCR; Western Blotting (WB)

GENE INFORMATION

Gene Name	PSME1 proteasome (prosome, macropain) activator subunit 1 (PA28 alpha) [Homo sapiens (human)]
Official Symbol	PSME1
Synonyms	PSME1; proteasome (prosome, macropain) activator subunit 1 (PA28 alpha); proteasome activator complex subunit 1; IFI5111; PA28alpha; REG-alpha; IGUP I-5111; 29-kD MCP activator subunit; interferon-gamma IEF SSP 5111; proteasome activator subunit-1; 11S regulator complex alpha subunit; 11S regulator complex subunit alpha; proteasome activator 28 subunit alpha; interferon-gamma-inducible

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	protein 5111; interferon gamma up-regulated I-5111 protein; activator of multicatalytic protease subunit 1; PA28A; REGalpha; MGC8628;
Gene ID	5720
mRNA Refseq	NM_006263
Protein Refseq	NP_006254
MIM	600654
UniProt ID	Q06323

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