



Anti-PSMC2 (full length) polyclonal antibody (DPAB-DC2557)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen 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. This gene encodes one of the ATPase subunits, a member of the triple-A family of ATPases which have a chaperone-like activity. This subunit has been shown to interact with several of the basal transcription factors so, in addition to participation in proteasome functions, this subunit may participate in the regulation of transcription. This subunit may also compete with PSMC3 for binding to the HIV tat protein to regulate the interaction between the viral protein and the transcription complex. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

Immunogen

PSMC2 (AAH02589.1, 1 a.a. ~ 433 a.a) full-length recombinant protein with GST tag. The sequence is
 MPDYLGADQRKTKEDKDDKPIRALDEGDIALLKTYGQSTYSRQIKQVEDDIQQLKKIN
 ELTGIKESDTGLAPPALWDLAADKQTLQSEQPLQVARCTKIINADSEDPKYIINVKQFAK
 FVVDLSDQVAPTIDIEEGMRVGVDRNKYQIHIPLPPKIDPTVTMMQVEEKPDVTYSVGGC
 KEQIEKLREVVETPLLHPERFVNLGIEPPKGVLLFGPPGTGKTLCAVANRTDACFIRV
 IGSELVQKYVGEARMVRELFEMARTKKACLIFFDEIDAIGGARFDDGAGGDNEVQRTML
 ELINQLDGFDPGRNIKVLMTNRPDTLDPALMRPGRDLRKIEFSLPDLEGRTHIFKI HAR
 SMSVERDIRFELLARLCPNSTGAEIRSVCTEAGMFAIRARR

Source/Host

Mouse

Species Reactivity

Human

Conjugate	Unconjugated
Applications	WB (Recombinant protein), ELISA,
Size	50 µl
Buffer	50 % glycerol
Preservative	None
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	PSMC2 proteasome (prosome, macropain) 26S subunit, ATPase, 2 [Homo sapiens (human)]
Official Symbol	PSMC2
Synonyms	PSMC2; proteasome (prosome, macropain) 26S subunit, ATPase, 2; S7; MSS1; Nbla10058; 26S protease regulatory subunit 7; protease 26S subunit 7; proteasome 26S subunit ATPase 2; proteasome 26S subunit, ATPase, 2; putative protein product of Nbla10058; 26S proteasome AAA-ATPase subunit RPT1; mammalian suppressor of sgv-1 of yeast;
Entrez Gene ID	5701
Protein Refseq	NP_001191382
UniProt ID	B7Z571
Chromosome Location	7q22.1-q22.3
Pathway	APC/C-mediated degradation of cell cycle proteins; APC/C:Cdc20 mediated degradation of mitotic proteins; AUF1 (hnRNP D0) destabilizes mRNA; Activation of NF-kappaB in B cells
Function	ATP binding; ATPase activity; protein binding;