
Product Data Sheet

Product Name: PSMA7 Human
 Cat. No.: GP22179
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	HSPC; RC6-1; XAPC7; MGC3755; PSMA-7; Proteasome subunit alpha type-7; Proteasome subunit RC6-1; Proteasome subunit XAPC7; PSMA7; C6.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MSYDRAITVF SPDGHLFQVE YAQEAVKKGS TAVGVRGRDI VVLGVEKKS SV AKLQDERTVR KICALDDNVC MAFAGLTADA RIVINRARVE CQSHRLTVED PVTVEYITRY IASLKQRYTQ SNGRRPFGIS ALIVGFDFDG TPRLYQTDPS GTYHAWKANA IGRGAKSVRE FLEKNYTDEA IETDDLTIKL VIKALLEVVQ SGGKNIELAV MRRDQSLKIL NPEEIEKYVA EIEKEKEENE KKKQKKAS.		
Formulation	The PSMA7 solution contains 20mM Tris-HCl pH-8, 0.1M NaCl, and 20% glycerol.		

Introduction

The proteasome is a multicatalytic proteinase complex with a highly assembled ring-shaped 20S core structure which 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. Proteasomes are found throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. PSMA7 is part of the peptidase T1A family, that is a 20S core alpha subunit. PSMA7 interacts particularly with the hepatitis B virus X protein, a protein critical to viral replication. PSMA7 is involved in regulating hepatitis virus C internal ribosome entry site activity that is crucial for viral replication. PSMA7 is in charge for regulating the hypoxia-inducible factor-1alpha, a transcription factor important for cellular responses to oxygen tension. PSMA7 is characterized by its ability to cleave peptides with Arg, Phe, Tyr, Leu, and Glu adjacent to the leaving group at neutral or slightly basic pH. PSMA7 interacts specifically with two subdomains of HIF-1alpha and inhibited the transactivation function of HIF-

Caution: Product has not been fully validated for medical applications. For research use only.

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1alpha under both normoxic and hypoxia-mimicking conditions.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

PSMA7 Human Recombinant fused to N-terminal His-Tag produced in E.Coli is a single, non-glycosylated polypeptide chain containing 268 amino acids (1-248) and having a molecular mass of 30kDa. PSMA7 is fused to a 20 amino acid His Tag at N-Terminus and purified by standard chromatography techniques.

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