abcam

Product datasheet

Recombinant Human PSMA Protein ab283938

3 Images

Description

Product name	Recombinant Human PSMA Protein
Purity	>= 95 % SDS-PAGE. >= 95 % HPLC
Endotoxin level	<=0.005 Eu/µg
Expression system	HEK 293T cells
Accession	Q04609
Protein length	Full length protein
Animal free	Yes
Carrier free	Yes
Nature	Recombinant
Species	Human
Sequence	KSSNEATNITPKHNMKAFLDELKAENIKKFLYNFTQIPHLAG TEQNFQLA KQIQSQWKEFGLDSVELAHYDVLLSYPNKTHPNYISIINEDG NEIFNTSL FEPPPPGYENVSDIVPPFSAFSPQGMPEGDLVYVNYART EDFFKLERDMK INCSGKIVIARYGKVFRGNKVKNAQLAGAKGVILYSDPADY FAPGVKSYP DGWNLPGGGVQRGNILNLNGAGDPLTPGYPANEYAYRRGI AEAVGLPSIP VHPIGYYDAQKLLEKMGGSAPPDSSWRGSLKVPYNVGPG FTGNFSTQKVK MHIHSTNEVTRIYNVIGTLRGAVEPDRYVILGGHRDSWVFG GIDPQSGAA VVHEIVRSFGTLKKEGWRPRRTILFASWDAEEFGLLGSTE WAEENSRLLQ ERGVAYINADSSIEGNYTLRVDCTPLMYSLVHNLTKELKSP DEGFEGKSL YESWTKKSPSPEFSGMPRISKLGSGNDFEVFFQRLGIASG RARYTKNWET NKFSGYPLYHSVYETYELVEKFYDPMFKYHLTVAQVRGGM VFELANSIVL PFDCRDYAVVLRKYADKIYSISMKHPQEMKTYSVSFDSLF

SAVKNFTEIA
SKFSERLQDFDKSNPIVLRMMNDQLMFLERAFIDPLGLPD
RPFYRHVIYA
PSSHNKYAGESFPGIYDALFDIESKVDPSKAWGEVKRQIY
VAAFTVQAAA ETLSEVA

Predicted molecular weight	80 kDa
Actual molecular weight	80 kDa
Molecular weight information	Mass determination by ESI TOF: Predicted MW is 79580.04 +/- 10Da. Observed MW is 79591.67 Da.
Amino acids	44 to 750
Additional sequence information	N-terminal glycine. Expression system is HEK 293 cells.

Specifications

Our **Abpromise guarantee** covers the use of **ab283938** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE HPLC Mass Spectrometry
Form	Lyophilized

Preparation and Storage

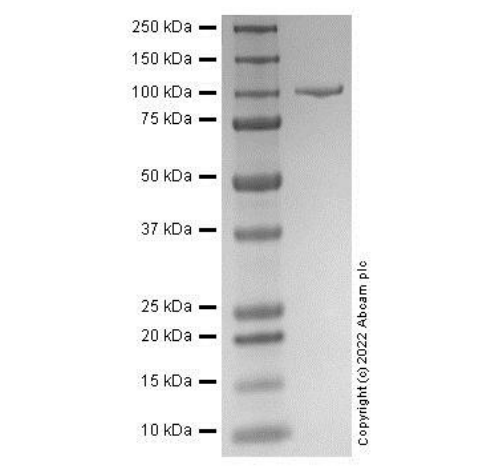
Stability and Storage	Shipped at Room Temperature. Store at Room Temperature. pH: 7.40 Constituents: 0.727% Dibasic monohydrogen potassium phosphate, 0.248% Monobasic dihydrogen potassium phosphate, 10.26% Trehalose
Reconstitution	Reconstitute with phosphate buffered saline. Store lyophilized form at room temperature. Reconstitute, aliquot and store at -80°C for 12 months or +4°C for 1 week. Avoid repeated freeze-thaw. Lyophilized contents may appear as either a translucent film or a white power. This variance does not affect the quality of the product.

General Info

Function	Has both folate hydrolase and N-acetylated-alpha-linked-acidic dipeptidase (NAALADase) activity. Has a preference for tri-alpha-glutamate peptides. In the intestine, required for the uptake of folate. In the brain, modulates excitatory neurotransmission through the hydrolysis of the neuropeptide, N-aceylaspartylglutamate (NAAG), thereby releasing glutamate. Isoform PSM-4 and isoform PSM-5 would appear to be physiologically irrelevant. Involved in prostate tumor progression. Also exhibits a dipeptidyl-peptidase IV type activity. In vitro, cleaves Gly-Pro-AMC.
Tissue specificity	Highly expressed in prostate epithelium. Detected in urinary bladder, kidney, testis, ovary, fallopian tube, breast, adrenal gland, liver, esophagus, stomach, small intestine, colon and brain (at protein level). Detected in the small intestine, brain, kidney, liver, spleen, colon, trachea, spinal cord and the capillary endothelium of a variety of tumors. Expressed specifically in jejunum brush

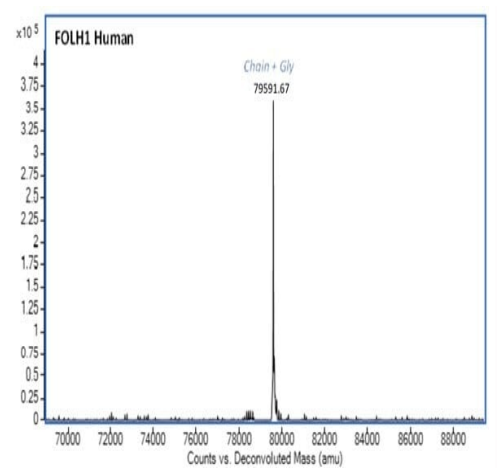
	border membranes. In the brain, highly expressed in the ventral striatum and brain stem. Also expressed in fetal liver and kidney. Isoform PSMA' is the most abundant form in normal prostate. Isoform PSMA-1 is the most abundant form in primary prostate tumors. Isoform PSMA-2 is also found in normal prostate as well as in brain and liver. Isoform PSMA-9 is specifically expressed in prostate cancer.
Sequence similarities	Belongs to the peptidase M28 family. M28B subfamily.
Domain	The NAALADase activity is found in the central region, the dipeptidyl peptidase IV type activity in the C-terminal.
Post-translational modifications	The first two amino acids at the N-terminus of isoform PSMA' appear to be cleaved by limited proteolysis. The N-terminus is blocked.
Cellular localization	Cytoplasm and Cell membrane.

Images



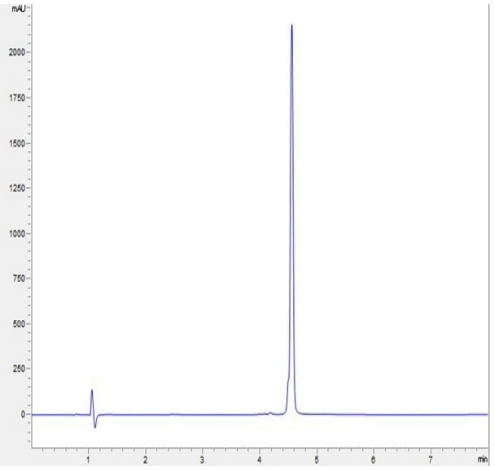
SDS-PAGE - Recombinant Human PSMA Protein (ab283938)

SDS-PAGE analysis of ab283938.



Mass Spectrometry - Recombinant Human PSMA Protein (ab283938)

Mass determination by ESI-TOF: 79580.04 +/- 10Da



HPLC - Recombinant Human PSMA Protein (ab283938)

HPLC analysis of ab283938.

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