

Mouse Anti-Prostatic acid phosphatase antibody

SLM-34159M

| | |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name | Prostatic acid phosphatase |
| Chinese Name | 前列腺酸性磷酸酶单克隆抗体 |
| Alias | Prosaposin; A1 activator; Cerebroside sulfate activator; Co-beta-glucosidase; Component C; CSAct; Dispersin; GLBA; Glucosylceramidase activator; Proactivator polypeptide; Proactivator polypeptide precursor; Prosaposin (sphingolipid activator protein 1); prosaposin (variant Gaucher disease and variant metachromatic leukodystrophy); Protein A; Protein C; PSAP; SAP-1; SAP-2; SAP_HUMAN; SAP1; Saposin A; Saposin B; Saposin B Val; Saposin C; Saposin D; Saposin-D; Saposins; Sgp1; Sphingolipid activator protein 1; Sphingolipid activator protein 2; Sulfated glycoprotein 1; Sulfatide/GM1 activator. |
| Immunogen Species | Mouse |
| Clonality | Monoclonal |
| Clone NO. | 3B9 |
| React Species | Human(predicted:Mouse,Rat) |
| Applications | IHC-P=1:100-500, IHC-F=1:100-500, IF=1:100-500 optimal dilutions/concentrations should be determined by the end user. |
| Theoretical molecular weight | 41kDa |
| Cellular localization | The cell membrane Secretory protein |
| Form | Lyophilized or Liquid |
| Concentration | 1mg/ml |
| immunogen | KLH conjugated synthetic peptide derived from human Prostatic Acid Phosphatase |
| Lsotype | IgG2b, Kappa |
| Purification | affinity purified by Protein A |
| Buffer Solution | PBS containing 50% glycerol, 0.5% BSA and 0.106% sodium azide. |

Storage

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

Prostatic Acid Phosphatase is Belongs to the histidine acid phosphatase family. Cellular localization; Secreted and Lysosome membrane.

Predominantly localized in the plasma membrane but also detected in intracellular vesicles.

Function:

A non-specific tyrosine phosphatase that dephosphorylates a diverse number of substrates under acidic conditions (pH 4-6) including alkyl, aryl, and acyl orthophosphate monoesters and phosphorylated proteins. Has lipid phosphatase activity and inactivates lysophosphatidic acid in seminal plasma.

Subunit:

Homodimer; dimer formation is required for phosphatase activity.

Subcellular Location:

Isoform 1: Secreted. Isoform 2: Cell membrane. Isoform 2: the cellular form also has ecto-5'-nucleotidase activity in dorsal root ganglion (DRG) neurons. Generates adenosine from AMP which acts as a pain suppressor. Acts as a tumor suppressor of prostate cancer through dephosphorylation of ERBB2 and deactivation of MAPK-mediated signaling.

Product Detail

Tissue Specificity:

Highly expressed in the prostate, restricted to glandular and ductal epithelial cells.

Post-translational modifications:

N-glycosylated. High mannose content, partially sialylated and fucosylated biantennary complex. Also fucosylated with partially sialylated triantennary complex oligosaccharides. Proteolytically cleaved in seminal fluid to produce several peptides. Peptide PAPf39, the most prominent, forms amyloid beta-sheet fibrils, SEVI (semen-derived enhancer of viral infection) which entrap HIV virions, attach them to target cells and enhance infection. SEVI amyloid fibrils are degraded by polyphenol epigallocatechin-3-gallate (EGCG), a constituent of green tea. Target cell attachment and enhancement of HIV infection is inhibited by surfen. Also similarly boosts XMRV (xenotropic murine leukemia virus-related virus) infection.

Similarity:

Belongs to the histidine acid phosphatase family.

SWISS:
P15309

Gene ID:
55

Database links:

[Entrez Gene: 504700](#) Cow

[Entrez Gene: 55](#) Human

[Entrez Gene: 56318](#) Mouse

[Entrez Gene: 56780](#) Rat

[Omim: 171790](#) Human

[SwissProt: A6H730](#) Cow

[SwissProt: P15309](#) Human

[SwissProt: Q8CE08](#) Mouse

[SwissProt: P20646](#) Rat

[Unigene: 433060](#) Human

[Unigene: 19941](#) Mouse

[Unigene: 40121](#) Rat