Prostate Specific Membrane Antigen (D7I8E) XP® Rabbit mAb

Storage:
Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.
** Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunohistochemistry (Paraffin) 1:100†

Unmasking buffer: Citrate
Antibody diluent: SignalStain® Antibody Diluent #8112
Detection reagent: SignalStain® Boost (HRP, Rabbit) #8114

†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background References:

Applications | Species Cross-Reactivity | Molecular Wt. | Isotype
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W, IHC-P | Endogenous | 100 kDa | Rabbit IgG**

Species Cross-Reactivity Key:
H — human
M — mouse
R — rat
Hm — hamster
Mm — monkey
Mi — mink
C — chicken
Dm — D. melanogaster
X — Xenopus
Z — zebrafish
B — bovine
Dg — dog
Pg — pig
Sc — S. cerevisiae
Ce — C. elegans
Mh — horse

All — all species expected

Applications Key:
W — Western
IP — Immunoprecipitation
IHC — Immunohistochemistry
ChIP — Chromatin Immunoprecipitation
IF — Immunofluorescence
F — Flow cytometry
E-P — ELISA-Peptide

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Background:
Prostate specific membrane antigen (PSMA, also known as FOLH1), a type II transmembrane protein of the M28 family, has both folate hydrolase and N-acetylated-alpha-linked acidic dipeptidase activity. PSMA was originally identified in the LNCaP cell line, which was derived from a prostate adenocarcinoma lymph node metastasis (1,2). PSMA is an established prostate cancer marker (3); however, it is expressed in other tissues, including kidney, liver, and urinary bladder (4), and it is associated with tumor neovascularation (5) as well. Research studies suggest that PSMA is both a potential diagnostic readout and therapeutic target (6-8).

Specificity/Sensitivity:
Prostate Specific Membrane Antigen (D7I8E) XP® Rabbit mAb recognizes endogenous levels of total prostate specific membrane antigen. An SDS resistant dimer at approximately 200 kDa can be detected depending on sample preparation conditions.

Source/Purification:
Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues in the extracellular domain of human prostate specific membrane antigen protein.

Western blot analysis of extracts from various cell lines using Prostate Specific Membrane Antigen (D7I8E) XP® Rabbit mAb (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower).

Immunohistochemical analysis of paraffin-embedded human ovarian serous adenocarcinoma using Prostate Specific Membrane Antigen (D7I8E) XP® Rabbit mAb. Note positive staining of blood vessels.

Immunohistochemical analysis of paraffin-embedded human prostate adenocarcinoma using Prostate Specific Membrane Antigen (D7I8E) XP® Rabbit mAb.
Immunohistochemical analysis of paraffin-embedded human prostate adenocarcinoma, using Prostate Specific Membrane Antigen (D78E) XP® Rabbit mAb in the presence of control peptide (left) or antigen-specific peptide (right).