

PPA1 (T-17): sc-55260

BACKGROUND

PPA1 (pyrophosphate phospho-hydrolase 1), also known as IOPPP (inorganic pyrophosphatase), PP1, PP or PPase, belongs to the PPase family of inorganic pyrophosphatases. Inorganic pyrophosphatases catalyze the intracellular conversion of pyrophosphate to inorganic phosphate, a key reaction for phosphate metabolism in cells. PPA1 is a ubiquitously expressed protein that localizes to the cytoplasm and is required for cell growth. It exists as a homodimer exhibiting magnesium dependent activity. The binding of two magnesium ions is required to stimulate PPA1 activity; however, both subunits in the homodimer are capable of binding four magnesium ions. The additional ions are useful in forming complexes with substrates and products. In addition, the activity of PPA1 can be inhibited by calcium.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PPA1 (human) mapping to 10q22.1; Ppa1 (mouse) mapping to 10 B4.

SOURCE

PPA1 (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PPA1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55260 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PPA1 (T-17) is recommended for detection of PPA1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PPA1 (T-17) is also recommended for detection of PPA1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PPA1 siRNA (h): sc-62850, PPA1 siRNA (m): sc-62851, PPA1 shRNA Plasmid (h): sc-62850-SH, PPA1 shRNA Plasmid (m): sc-62851-SH, PPA1 shRNA (h) Lentiviral Particles: sc-62850-V and PPA1 shRNA (m) Lentiviral Particles: sc-62851-V.

Molecular Weight of PPA1: 33 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
Guaranteed

Try **PPA1 (B-8): sc-377081** or **PPA1 (42K-7): sc-100823**, our highly recommended monoclonal alternatives to PPA1 (T-17).