

# PHOSPHO2 (S-15): sc-243792

## BACKGROUND

PHOSPHO2 (phosphatase, orphan 2), also known as pyridoxal phosphate phosphatase PHOSPHO2, is a 241 amino acid protein that belongs to the HAD-like hydrolase superfamily and the PHOSPHO family. PHOSPHO2 shares 42% sequence identity with PHOSPHO1, with both proteins containing three catalytic motifs conserved within the superfamily. PHOSPHO2 contains one PH domain, which mediates phosphoinositide binding. Encoded by a gene that maps to human chromosome 2q31.1, PHOSPHO2 exists as two alternatively spliced isoforms and exhibits high activity toward pyridoxal 5'-phosphate (PLP). PHOSPHO2 is also active at much lower levels toward pyrophosphate, phosphoethanolamine (PEA), phosphocholine (PCho), phospho-l-tyrosine, fructose-6-phosphate, PNNP and glycerophosphate.

## REFERENCES

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- Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
- Roberts, S.J., et al. 2005. Probing the substrate specificities of human PHOSPHO1 and PHOSPHO2. *Biochim. Biophys. Acta* 1752: 73-82.
- Oh, J.H., et al. 2005. Transcriptome analysis of human gastric cancer. *Mamm. Genome* 16: 942-954.
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- Kimura, K., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. *Genome Res.* 16: 55-65.
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## CHROMOSOMAL LOCATION

Genetic locus: PHOSPHO2 (human) mapping to 2q31.1.

## SOURCE

PHOSPHO2 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PHOSPHO2 of human 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-243792 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

PHOSPHO2 (S-15) is recommended for detection of PHOSPHO2 of 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); non cross-reactive with PHOSPHO1.

PHOSPHO2 (S-15) is also recommended for detection of PHOSPHO2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for PHOSPHO2 siRNA (h): sc-94280, PHOSPHO2 shRNA Plasmid (h): sc-94280-SH and PHOSPHO2 shRNA (h) Lentiviral Particles: sc-94280-V.

Molecular Weight of PHOSPHO2: 28 kDa.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.