**Pez (F-12): sc-373766**

**BACKGROUND**

Pez (protein tyrosine phosphatase Pez), also known as PTP36 or Tyrosine-protein phosphatase non-receptor type 14 (PTPN14), is a member of the non-receptor class subfamily of the protein tyrosine phosphatase family. Protein tyrosine phosphatases (PTPs) are involved in the regulation of a variety of cellular processes. Pez is a cytosolic protein (concentrated at the intercellular junctions) that is expressed in various tissues including placenta, lung, kidney and skeletal muscle. It contains one protein tyrosine phosphatase domain and one FERM (4.1, ezrin, radixin, moesin) domain. In actively proliferating cells, where cell-cell contacts have been disrupted, Pez translocates to the nucleus. TGFβ, a protein known to inhibit cell proliferation, can inhibit the nuclear translocation of Pez. Localization of Pez is also regulated by serum concentrations; higher serum concentrations can lead to the accumulation of Pez in the nucleus. This strongly suggests a role for Pez in cell proliferation.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: PTPN14 (human) mapping to 1q41; Ptn14 (mouse) mapping to 1 H6.

**SOURCE**

Pez (F-12) is a mouse monoclonal antibody raised against amino acids 321-387 mapping within an internal region of Pez of human origin.

**PRODUCT**

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

Pez (F-12) is available conjugated to agarose (sc-373766 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-62777, Pez shRNA Plasmid (h): sc-62777-SH, Pez shRNA Plasmid (m): sc-62778-SH, Pez shRNA (h) Lentiviral Particles: sc-62777-V and Pez shRNA (m) Lentiviral Particles: sc-62778-V.

**APPLICATIONS**

Pez (F-12) is recommended for detection of Pez of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Pez siRNA (h): sc-62777, Pez siRNA (m): sc-62778, Pez shRNA Plasmid (h): sc-62777-SH, Pez shRNA Plasmid (m): sc-62778-SH, Pez shRNA (h) Lentiviral Particles: sc-62777-V and Pez shRNA (m) Lentiviral Particles: sc-62778-V.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FTC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistoarchitect: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

Pez (F-12): sc-373766. Western blot analysis of Pez expression in HUV-EC-C (A), SH-SY5Y (B), PC-12 (C) and AT-38-1 (D) whole cell lysates.

Pez (F-12): sc-373766. Immunofluorescence staining of formalin-fixed paraffin-embedded placenta showing cytoplasmic, membrane and nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (B).

**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.