

# GDE4 (P-13): sc-242905

## BACKGROUND

GDE4 (glycerophosphodiester phosphodiesterase 4), also known as GDPD1 (glycerophosphodiester phosphodiesterase domain-containing protein 1), is a 314 amino acid cytoplasmic and multi-pass membrane protein that belongs to the glycerophosphoryl diester phosphodiesterase family. Expressed in small intestine, placenta, kidney, ovary, thymus, pancreas, spleen, liver and peripheral blood leukocytes, GDE4 contains one GDPD domain and exists as three alternatively spliced isoforms. GDE4 is encoded by a gene that maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1.

## REFERENCES

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2. Piura, B., et al. 2001. Three primary malignancies related to BRCA mutation successively occurring in a BRCA1 185delAG mutation carrier. *Eur. J. Obstet. Gynecol. Reprod. Biol.* 97: 241-244.
3. Wu, M., et al. 2003. A novel splice variant of human gene GDPD1 is mainly expressed in human ovary and small intestine. *Int. J. Mol. Med.* 12: 1003-1007.
4. Wu, M., et al. 2005. A novel splice variant of human gene NPL, mainly expressed in human liver, kidney and peripheral blood leukocyte. *DNA Seq.* 16: 137-142.
5. Zody, M.C., et al. 2006. DNA sequence of human chromosome 17 and analysis of rearrangement in the human lineage. *Nature* 440: 1045-1049.
6. Yanaka, N. 2007. Mammalian glycerophosphodiester phosphodiesterases. *Biosci. Biotechnol. Biochem.* 71: 1811-1818.
7. Chang, P.A., et al. 2008. Isolation, characterization and molecular 3D model of human GDE4, a novel membrane protein containing glycerophosphodiester phosphodiesterase domain. *Mol. Membr. Biol.* 25: 557-566.
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## CHROMOSOMAL LOCATION

Genetic locus: GDPD1 (human) mapping to 17q22; Gdpd1 (mouse) mapping to 11 C.

## SOURCE

GDE4 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of GDE4 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-242905 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GDE4 (P-13) is recommended for detection of GDE4 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); non cross-reactive with other GDE family members.

GDE4 (P-13) is also recommended for detection of GDE4 in additional species, including canine.

Suitable for use as control antibody for GDE4 siRNA (h): sc-93892, GDE4 siRNA (m): sc-145376, GDE4 shRNA Plasmid (h): sc-93892-SH, GDE4 shRNA Plasmid (m): sc-145376-SH, GDE4 shRNA (h) Lentiviral Particles: sc-93892-V and GDE4 shRNA (m) Lentiviral Particles: sc-145376-V.

Molecular Weight of GDE4 isoforms: 36/33/33 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.

## 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.

## PROTOCOLS

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