

PXDN (2C11): sc-293408

BACKGROUND

PXDN (peroxidasin homolog), also known as PXN, VPO (vascular peroxidase 1), PRG2 (p53-responsive gene 2 protein) or MG50 (melanoma-associated gene 50), is a 1,479 amino acid secreted protein that is highly expressed in heart, lung, ovary, spleen, intestine and placenta, and lowly expressed in liver, colon, pancreas, kidney, thymus, skeletal muscle and prostate. Belonging to the peroxidase family and the XPO subfamily, PXDN is suggested to participate in extracellular matrix formation. PXDN consists of four Ig-like C2-type (immunoglobulin-like) domains, four LRR (leucine-rich repeats), one LRRCT domain, one LRRNT domain and a VWFC domain. PXDN may exist as two alternatively isoforms and as a homotrimer with a unique hybrid structure that combines an enzymatically functional peroxidase domain with motifs that are typically found in extracellular matrix-associated proteins.

REFERENCES

- Weiler, S.R., et al. 1994. Assignment of a human melanoma associated gene MG50 (D2S448) to chromosome 2p25.3 by fluorescence *in situ* hybridization. *Genomics* 22: 243-244.
- Nagase, T., et al. 1996. Prediction of the coding sequences of unidentified human genes. VI. The coding sequences of 80 new genes (K1AA0201-K1AA0280) deduced by analysis of cDNA clones from cell line KG-1 and brain. *DNA Res.* 3: 321-329, 341-354.
- Horikoshi, N., et al. 1999. Isolation of differentially expressed cDNAs from p53-dependent apoptotic cells: activation of the human homologue of the *Drosophila* peroxidasin gene. *Biochem. Biophys. Res. Commun.* 261: 864-869.
- Mitchell, M.S., et al. 2000. A novel melanoma gene (MG50) encoding the interleukin 1 receptor antagonist and six epitopes recognized by human cytolytic T lymphocytes. *Cancer Res.* 60: 6448-6456.
- Online Mendelian Inheritance in Man, OMIM[™]. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 605158. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Cheng, G., et al. 2008. Identification and characterization of VPO1, a new animal heme-containing peroxidase. *Free Radic. Biol. Med.* 45: 1682-1694.
- Peterfi, Z., et al. 2009. Peroxidasin is secreted and incorporated into the extracellular matrix of myofibroblasts and fibrotic kidney. *Am. J. Pathol.* 175: 725-735.

CHROMOSOMAL LOCATION

Genetic locus: PXDN (human) mapping to 2p25.3.

SOURCE

PXDN (2C11) is a mouse monoclonal antibody raised against amino acids 1452-1561 of PXDN of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

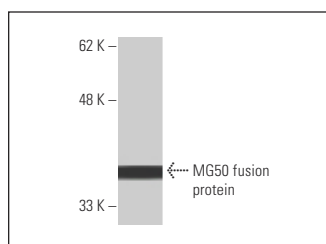
PXDN (2C11) is recommended for detection of PXDN of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of PXDN: 165 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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).

DATA



MG50 (2C11): sc-293408. Western blot analysis of human recombinant MG50 fusion protein.

SELECT PRODUCT CITATIONS

- Mun, S., et al. 2022. Transcriptome profile of membrane and extracellular matrix components in ligament-fibroblastic progenitors and cementoblasts differentiated from human periodontal ligament cells. *Genes* 13: 659.
- Fang, F., et al. 2022. m⁶A RNA methylation regulator-based signature for prognostic prediction and its potential immunological role in uterine corpus endometrial carcinoma. *BMC Cancer* 22: 1364.

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 for detailed protocols and support products.