

MGP polyclonal antibody

Catalog: BCP01097

Host: Rabbit

Reactivity: Human, Mouse, Rat

BackGround:

Matrix Gla protein, or MGP, is involved in regulating calcification in the extracellular matrix, in particular in cartilage and arteries. MGP is a vitamin K-dependent protein containing five to six residues of γ -carboxy-glutamic acid (Gla), a Ca^{2+} binding amino acid requiring vitamin K-dependent γ carboxylase for its formation. In humans MGP is an 84 residue protein along with a 19 amino acid transmembrane signal peptide. A shortened 77 residue form of MGP is found in human bone extracts, likely formed by COOH-terminal processing by carboxypeptidase B-like enzymatic activity. High levels of expression occur in heart, kidney and lung, and over-expression of MGP occurs in the breast cancer cell line 600 PEI. Retinoic acid induces MGP expression in chondrocytes, fibroblasts and osteoblasts. Mutations in the gene coding for MGP can cause Keutel syndrome (KS), associated with abnormal cartilage calcification, substantiating the role of MGP in extracellular matrix calcification regulation. MGP can bind Vitronectin and Fibronectin via its C-terminus; phosphorylation of MGP occurs near the N-terminus at three serine residues, which are part of a tandemly repeated Ser-X-Glu sequence.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

Molecular Weight:

~ 12 kDa

Swiss-Prot:

P08493

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB: 1:500~1:2000

IHC: 1:50~1:200

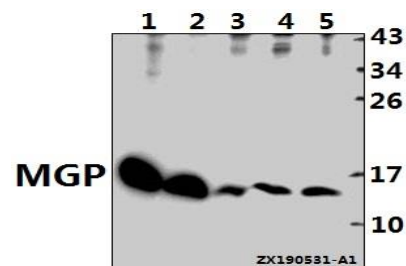
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

MGP polyclonal antibody detects endogenous levels of MGP protein.

DATA:



Western blot (WB) analysis of MGP pAb at 1:500 dilution

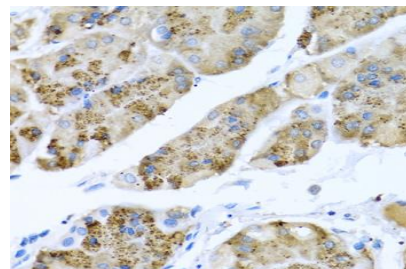
Lane1:CT26 whole cell lysate(40ug)

Lane2:H9C2 whole cell lysate(40ug)

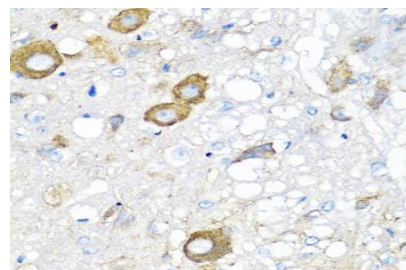
Lane3:Hela whole cell lysate(40ug)

Lane4:MCF-7 whole cell lysate(40ug)

Lane5:PC3 whole cell lysate(40ug)



Immunohistochemistry of paraffin-embedded rat brain using MGP antibody at dilution of 1:100 (40x lens).



Immunohistochemistry of paraffin-embedded human stomach using MGP antibody at dilution of 1:100 (40x lens).

Note:

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

