

# BMP-10 (N-21): sc-130121

## BACKGROUND

Bone morphogenic proteins (BMPs) are members of the TGF $\beta$  superfamily and are involved in the induction of cartilage and bone formation. BMP-10 (bone morphogenetic protein 10) is a 424 amino acid secreted protein that exists as a disulfide-linked homodimer. Expressed specifically in heart tissue, BMP-10 functions to prevent the premature activation of p57 (a negative cell cycle regulator), thereby maintaining the proliferative activity of embryonic cardiomyocytes and playing a critical role in the formation of trabeculae within the developing heart. Additionally, BMP-10 inhibits the growth and migration of endothelial cells and functions as a ligand for ALK-1, a protein that is tightly linked to angiogenesis. This suggests that, in addition to its role in cardiomyocyte formation, BMP-10 participates in the formation of blood vessels in developing cardiac muscle.

## REFERENCES

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## STORAGE

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

## CHROMOSOMAL LOCATION

Genetic locus: BMP10 (human) mapping to 2p13.3.

## SOURCE

BMP-10 (N-21) is a purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of BMP-10 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

BMP-10 (N-21) is recommended for detection of BMP-10 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), 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).

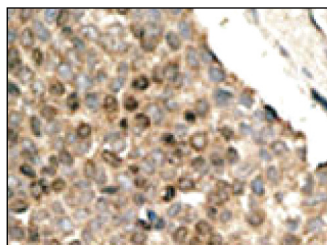
Suitable for use as control antibody for BMP-10 siRNA (h): sc-39758, BMP-10 shRNA Plasmid (h): sc-39758-SH and BMP-10 shRNA (h) Lentiviral Particles: sc-39758-V.

Molecular Weight of BMP-10: 48 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz<sup>™</sup>: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



BMP-10 (N-21): sc-130121. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cancer tissue showing cytoplasmic staining.

## RESEARCH USE

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