abcam

Product datasheet

# Anti-GDF 5 antibody - C-terminal ab137698

1 References 2 Images

## Overview

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| **Product name** | Anti-GDF 5 antibody - C-terminal |
| **Description** | Rabbit polyclonal to GDF 5 - C-terminal |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** WB |
| **Species reactivity** | **Reacts with:** Mouse, Human<br>**Predicted to work with:** Rabbit, Chicken, Cow, Xenopus laevis, Xenopus tropicalis |
| **Immunogen** | Synthetic peptide corresponding to a region within C terminal amino acids 437-501 of Human GDF 5 (Uniprot P43026) |
| **Positive control** | 293T, A431, H1299, NIH-3T3 and JC cells. |
| **General notes** | The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.<br>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As |

## Properties

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| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles. |
| **Storage buffer** | pH: 7.00<br>Preservative: 0.01% Thimerosal (merthiolate)<br>Constituents: 1.21% Tris, 0.75% Glycine, 10% Glycerol (glycerin, glycerine) |
| **Purity** | Immunogen affinity purified |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab137698 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|---|---|---|
| **WB** | | 1/500 - 1/3000. Predicted molecular weight: 55 kDa. |

## Target

**Function** Could be involved in bone and cartilage formation. Chondrogenic signaling is mediated by the high-affinity receptor BMPR1B.

**Tissue specificity** Predominantly expressed in long bones during embryonic development.

**Involvement in disease** Defects in GDF5 are the cause of acromesomelic chondrodysplasia Grebe type (AMDG) [MIM:200700]. Acromesomelic chondrodysplasias are rare hereditary skeletal disorders characterized by short stature, very short limbs, and hand/foot malformations. The severity of limb abnormalities increases from proximal to distal with profoundly affected hands and feet showing brachydactyly and/or rudimentary fingers (knob-like fingers). AMDG is an autosomal recessive form characterized by normal axial skeletons and missing or fused skeletal elements within the hands and feet.
Defects in GDF5 are the cause of acromesomelic chondrodysplasia Hunter-Thompson type (AMDH) [MIM:201250]. AMDH is an autosomal recessive form of dwarfism. Patients have limb abnormalities, with the middle and distal segments being most affected and the lower limbs more affected than the upper. AMDH is characterized by normal axial skeletons and missing or fused skeletal elements within the hands and feet.
Defects in GDF5 are the cause of brachydactyly type C (BDC) [MIM:113100]. BDC is an autosomal dominant disorder characterized by an abnormal shortness of the fingers and toes.
Defects in GDF5 are the cause of Du Pan syndrome (DPS) [MIM:228900]; also known as fibular hypoplasia and complex brachydactyly. Du Pan syndrome is a rare autosomal recessive condition characterized by absence of the fibulae and severe acromesomelic limb shortening with small, non-functional toes. Although milder, the phenotype resembles the autosomal recessive Hunter-Thompson [MIM:201250] and Grebe types [MIM:200700] of acromesomelic chondrodysplasia.
Defects in GDF5 are a cause of symphalangism proximal syndrome (SYM1) [MIM:185800]. SYM1 is characterized by the hereditary absence of the proximal interphalangeal (PIP) joints (Cushing symphalangism). Severity of PIP joint involvement diminishes towards the radial side. Distal interphalangeal joints are less frequently involved and metacarpophalangeal joints are rarely affected whereas carpal bone malformation and fusion are common. In the lower extremities, tarsal bone coalition is common. Conducive hearing loss is seen and is due to fusion of the stapes to the petrous part of the temporal bone.
Defects in GDF5 are the cause of multiple synostoses syndrome type 2 (SYNS2) [MIM:610017]. Multiple synostoses syndrome is an autosomal dominant condition characterized by progressive joint fusions of the fingers, wrists, ankles and cervical spine, characteristic facies and progressive conductive deafness.
Defects in GDF5 are a cause of brachydactyly type A2 (BDA2) [MIM:112600]. Brachydactylies (BDs) are a group of inherited malformations characterized by shortening of the digits due to abnormal development of the phalanges and/or the metacarpals. They have been classified on an anatomic and genetic basis into five groups, A to E, including three subgroups (A1 to A3) that usually manifest as autosomal dominant traits.
Genetic variations in GDF5 are associated with susceptibility to osteoarthritis type 5 (OS5) [MIM:612400]. Osteoarthritis is a degenerative disease of the joints characterized by degradation

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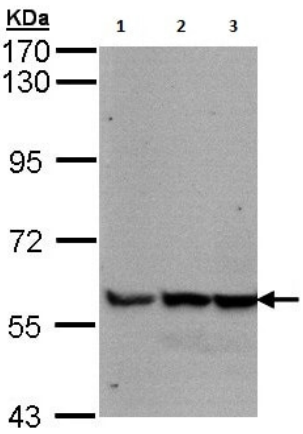
| | of the hyaline articular cartilage and remodeling of the subchondral bone with sclerosis. Clinical symptoms include pain and joint stiffness often leading to significant disability and joint replacement.<br>Defects in GDF5 may be a cause of brachydactyly type A1 (BDA1) [MIM:112500].<br>Brachydactylies (BDs) are a group of inherited malformations characterized by shortening of the digits due to abnormal development of the phalanges and/or the metacarpals. They have been classified on an anatomic and genetic basis into five groups, A to E, including three subgroups (A1 to A3) that usually manifest as autosomal dominant traits. |
| **Sequence similarities** | Belongs to the TGF-beta family. |
| **Cellular localization** | Secreted. |

## Images




Western blot - Anti-GDF 5 antibody - C-terminal (ab137698)

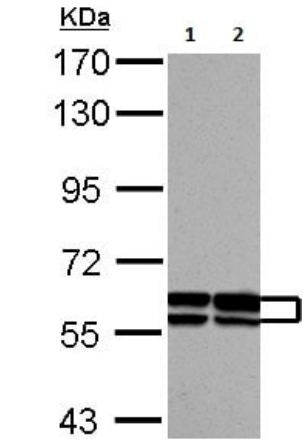
**All lanes :** Anti-GDF 5 antibody - C-terminal (ab137698) at 1/500 dilution

**Lane 1 :** Whole cell lysate prepared from 293T cells
**Lane 2 :** Whole cell lysate prepared from A431 cells
**Lane 3 :** Whole cell lysate prepared from H1299 cells

Lysates/proteins at 30 µg per lane.

**Predicted band size:** 55 kDa

7.5% SDS PAGE




Western blot - Anti-GDF 5 antibody - C-terminal (ab137698)

**All lanes :** Anti-GDF 5 antibody - C-terminal (ab137698) at 1/1000 dilution

**Lane 1 :** Whole cell lysate prepared from NIH-3T3 cells
**Lane 2 :** Whole cell lysate prepared from JC cells

Lysates/proteins at 30 µg per lane.

**Predicted band size:** 55 kDa

7.5% SDS PAGE

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