

Human GDF11 ELISA Kit | GDF11 elisa kit

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CATALOG #
AAA263332

REACTIVITY
Human

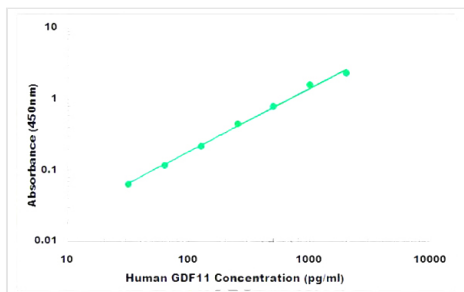
PRODUCT SYNONYMS

GDF11; Human GDF11 ELISA Kit; BMP11; Growth/differentiation factor 11; GDF-11; Bone morphogenetic protein 11; BMP-11; GDF11 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	The Human GDF11 ELISA Kit allows for the detection and quantification of endogenous levels of natural and/or recombinant Human GDF11 proteins within the range of 31.2 pg/ml - 2000 pg/ml.
Sequence Length	407
Samples	Culture Supernates, Serum, Plasma
Sensitivity	< 15 pg/ml
Detection Method	Colorimetric
Preparation and Storage	Store at 4 degree C for 6 months, store at -20 degree C for one year. Avoid freeze/thaw cycles.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for GDF11 elisa kit

Background: Growth Differentiation Factor 11 (GDF-11), also known as BMP-11, is a member of the TGF-beta superfamily and is highly related to GDF-8. GDF-11 encodes a 407 amino acid prepropeptide which contains a signal sequence for secretion and an RXXR proteolytic processing site to yield a 109 aa residue carboxy-terminal mature protein. Mature GDF-11 contains the canonical 7-cysteine motif common to other TGF-beta superfamily members; however, like the TGF-beta s, Activins and GDF-8, GDF-11 also contains one extra pair of cysteine residues. As detected by in situ hybridization, GDF-11 is expressed in diverse regions of the mouse embryo: tailbud, somitic precursors, limbs, mandibular and branchial arches, dorsal neural tube, odontoblasts, nasal epithelium, and particular regions of the brain. Likewise, a targeted deletion of GDF-11 in mice results in a spectrum of abnormalities including palatal malformation, vertebral defects, elongated trunks with a reduced or absent tail, missing or malformed kidneys, and an increased number of neurons in the olfactory epithelium. An intriguing finding in the knockout mice was that the trunk elongation was due to an increase in the number of thoracic vertebrae. This implicates GDF-11 as the first secreted factor to influence the specification of segmental identity in vertebrates. In fact, GDF-11 does regulate expression of segmental transcription factors, the Hox genes. GDF-11 signals through the Activin type II receptors and induces phosphorylation of Smad2 to mediate axial patterning. Despite the strong expression in the limb throughout development, no limb abnormalities were found in the knockout mice. However, in vitro micromass studies indicate that GDF-11 inhibits myogenic and chondrogenic cell differentiation and may impact formation and development of the limb skeleton.

Principle of the Assay: The AAA Biotech' Human GDF11 ELISA (Enzyme-Linked Immunosorbent Assay) kit is an in vitro enzyme-linked immunosorbent assay for the quantitative measurement of Human GDF11 in Cell Culture Supernates, Serum, Plasma. This assay employs an antibody specific for Human GDF11 coated on a 96-well plate. Standards and samples are pipetted into the wells and GDF11 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human GDF11 antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of GDF11 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

NCBI AND UNIPROT INFORMATION

NCBI GI #	5031613
NCBI GeneID	10220
NCBI Accession #	NP_005802.1
NCBI GenBank Nucleotide #	NM_005811.4
UniProt Accession #	O95390; Q9UID1; Q9UID2
Molecular Weight	45,091 Da
NCBI Official Full Name	growth/differentiation factor 11 preproprotein
NCBI Official Synonym Full Names	growth differentiation factor 11
NCBI Official Symbol	GDF11
NCBI Official Synonym Symbols	BMP11; BMP-11
NCBI Protein Information	growth/differentiation factor 11
UniProt Protein Name	Growth/differentiation factor 11
UniProt Gene Name	GDF11
UniProt Synonym Gene Names	; BMP-11

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.