GDF1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	GDF1, Polyclonal Antibody
Full Product Name	GDF1 Conjugated Antibody
Product Gene Name	anti-GDF1 antibody
Product Synonym Names	DORV; DTGA3
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Specificity	The antibody detects endogenous levels of total GDF1 protein.
Preparation and Storage	Store at 4 degree C for 6 months.
Molecular Weight	41 kDa
OMIM	187500
3D Structure	ModBase 3D Structure for P27539
Immunogen	Synthetic peptide corresponding to a region derived from internal residues of human Growth differentiation factor 1
Conjugation	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Excitation Emission	AF350: 346nm/442nm
Applications Tested/Suitable for anti-GDF1 antibody	Most Applications
Application Notes for anti-GDF1 antibody	Suggested Dilution: AF350 conjugated: most applications: 1:50-1:250 AF405 conjugated: most applications: 1:50-1:250 AF488 conjugated: most applications: 1:50-1:250 AF555 conjugated: most applications: 1:50-1:250 AF594 conjugated: most applications: 1:50-1:250 AF647 conjugated: most applications: 1:50-1:250 AF680 conjugated: most applications: 1:50-1:250 AF750 conjugated: most applications: 1:50-1:250 Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1:50-1:1000
Related Product Information for anti-GDF1 antibody	This gene encodes a member of the bone morphogenetic protein (BMP) family and the TGF-beta superfamily. This group of proteins is characterized by a polybasic proteolytic processing site that is cleaved to produce a mature protein containing seven conserved cysteine residues. The members of this family are regulators of cell growth and differentiation in both embryonic and adult tissues. Studies in rodents suggest that this protein is involved in the establishment of left-right asymmetry in early embryogenesis and in neural development in later embryogenesis. This protein is transcribed from a bicistronic mRNA that also encodes the longevity assurance gene.
Other Notes	Small volumes of anti-GDF1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GDF1 purchase	MBS9447347 is an antibody targeting GDF1. Also known as GDF1 Conjugated Antibody. Reactive in Human, Mouse. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GDF1. It may not necessarily be applicable to this product.

NCBI GI #	110349792
NCBI GeneID	2657
NCBI Accession #	NP_001483
UniProt Primary Accession #	P27539
UniProt Secondary Accession #	O43344
UniProt Related Accession #	P27539
GenBank Nucleotide #	NM_001492.5
NCBI Official Full Name	embryonic growth/differentiation factor 1
NCBI Official Synonym Full Names	growth differentiation factor 1
NCBI Official Symbol	GDF1
NCBI Official Synonym Symbols	RAI; DORV; DTGA3
UniProt Protein Name	Embryonic growth/differentiation factor 1
Protein Family	Embryonic growth/differentiation factor
UniProt Gene Name	GDF1
UniProt Synonym Gene Names	GDF-1
UniProt Entry Name	GDF1_HUMAN
NCBI Protein Information	embryonic growth/differentiation factor 1; GDF-1
NCBI Summary for GDF1	This gene encodes a member of the bone morphogenetic protein (BMP) family and the TGF-beta superfamily. This group of proteins is characterized by a polybasic proteolytic processing site that is cleaved to produce a mature protein containing seven conserved cysteine residues. The members of this family are regulators of cell growth and differentiation in both embryonic and adult tissues. Studies in rodents suggest that this protein is involved in the establishment of left-right asymmetry in early embryogenesis and in neural development in later embryogenesis. This protein is transcribed from a bicistronic mRNA that also encodes the longevity assurance gene. Mutations in this gene are associated with several congenital cardiovascular malformations. [provided by RefSeq, Mar 2014]

UniProt Comments for GDF1	GDF1: May mediate cell differentiation events during embryonic development. Defects in GDF1 are a cause of conotruncal heart malformations (CTHM). A group of congenital heart defects involving the outflow tracts. Examples include truncus arteriosus communis, double-outlet right ventricle and transposition of great arteries. Truncus arteriosus communis is characterized by a single outflow tract instead of a separate aorta and pulmonary artery. In transposition of the great arteries, the aorta arises from the right ventricle and the pulmonary artery from the left ventricle. In double outlet of the right ventricle, both the pulmonary artery and aorta arise from the right ventricle. Defects in GDF1 are the cause of transposition of the great arteries dextro-looped type 3 (DTGA3). A congenital heart defect consisting of complete inversion of the great vessels, so that the aorta incorrectly arises from the right ventricle and the pulmonary artery incorrectly arises from the left ventricle. This creates completely separate pulmonary and systemic circulatory systems, an arrangement that is incompatible with life. The presence or absence of associated cardiac anomalies defines the clinical presentation and surgical management of patients with transposition of the great arteries. Defects in GDF1 are a cause of tetralogy of Fallot (TOF). A congenital heart anomaly which consists of pulmonary stenosis, ventricular septal defect, dextroposition of the aorta (aorta is on the right side instead of the left) and hypertrophy of the right ventricle. In this condition, blood from both ventricles (oxygen-rich and oxygen-poor) is pumped into the body often causing cyanosis. Belongs to the TGF-beta family. Protein type: Secreted, signal peptide; Secreted Chromosomal Location of Human Ortholog: 19p12 Cellular Component: extracellular space Molecular Function: growth factor activity; cytokine activity; transforming growth factor beta receptor binding Biological Process: regulation of apoptosis; BMP signaling pathway; regulation of MAPKKK cascade; cell development; growth Disease: Transposition Of The Great Arteries, Dextro-looped 3; Right Atrial Isomerism; Conotruncal Heart Malformations; Tetralogy Of Fallot
Research Articles on GDF1	**1.** This implies that Gdf1 potentiates Nodal activity by stabilizing a low molecular weight fraction that is susceptible to neutralization by soluble Acvr2.
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