

ARG82351 Rat GDF5 ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG82351-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG82351-002	Standard	2 X 10 ng/vial	4°C
ARG82351-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG82351-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG82351-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG82351-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG82351-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG82351-008	25X Wash buffer	20 ml	4°C
ARG82351-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG82351-010	STOP solution	10 ml (Ready to use)	4°C
ARG82351-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG82351 Rat GDF5 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Rat GDF5 in serum, plasma (EDTA, heparin) and cell culture supernatants.
Tested Reactivity	Rat
Tested Application	ELISA
Target Name	GDF5
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	15.6 pg/ml
Sample Type	Serum, plasma (EDTA, heparin) and cell culture supernatants.
Standard Range	31.2 - 2000 pg/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: 5.5% Inter-Assay CV: 6.8%

Alternate Names LAP-4; CDMP-1; Cartilage-derived morphogenetic protein 1; SYM1B; GDF-5; Radotermin; BDA1C; OS5; LAP4; Bone morphogenetic protein 14; BMP-14; BMP14; Lipopolysaccharide-associated protein 4; LPS-associated protein 4; SYNS2; Growth/differentiation factor 5; CDMP1

Application Instructions

Assay Time ~ 5 hours

Properties

Form 96 well

Storage instruction Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol GDF5

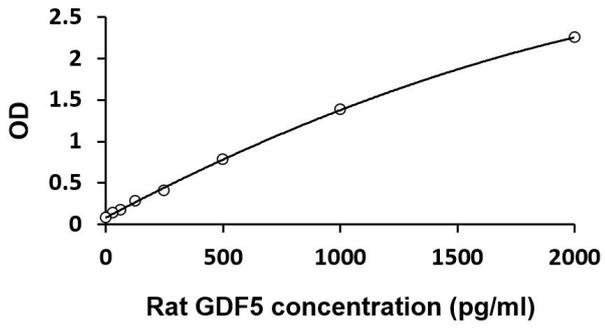
Gene Full Name growth differentiation factor 5

Background The protein encoded by this gene is 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 which 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. Mutations in this gene are associated with acromesomelic dysplasia, Hunter-Thompson type; brachydactyly, type C; and chondrodysplasia, Grebe type. These associations confirm that the gene product plays a role in skeletal development. [provided by RefSeq, Jul 2008]

Function Growth factor involved in bone and cartilage formation. During cartilage development regulates differentiation of chondrogenic tissue through two pathways. Firstly, positively regulates differentiation of chondrogenic tissue through its binding of high affinity with BMPR1B and of less affinity with BMPR1A, leading to induction of SMAD1-SMAD5-SMAD8 complex phosphorylation and then SMAD protein signaling transduction. Secondly, negatively regulates chondrogenic differentiation through its interaction with NOG. Required to prevent excessive muscle loss upon denervation. This function requires SMAD4 and is mediated by phosphorylated SMAD1/5/8 (By similarity). Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes. [UniProt]

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[Simplify the ELISA analysis by GainData](#)

Cellular Localization Secreted. Cell membrane. [UniProt]



ARG82351 Rat GDF5 ELISA Kit standard curve image

ARG82351 Rat GDF5 ELISA Kit results of a typical standard run with optical density reading at 450 nm.