Mouse GDF-5/BMP-14 Alexa Fluor® 750-conjugated Antibody

Monoclonal Rat IgG_{2B} Clone # 143004

Catalog Number: FAB8531S

100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse GDF-5/BMP-14 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse (rm) GDF-1, rmPro-GDF-1, rmGDF-3, rmPro-GDF-3, rmGDF-6, rmGDF-7, rmGDF-8, rmGDF-9, rmPro-GDF-9, rmGDF-15, or recombinant human GDF-11 is ob
Source	Monoclonal Rat IgG_{2B} Clone # 143004
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse GDF-5/BMP-14 Ala376-Arg495 Accession # P43027
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Neutralization	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Growth Differentiation Factor 5 (GDF-5), also known as cartilage-derived morphogenetic protein 1 (CDMP-1) and BMP-14, is a member of the bone morphogenetic protein (BMP) family which belongs to the transforming growth factor β (TGF-β) superfamily. GDF-5 is synthesized as a large precursor protein that consists of an N-terminal 19 amino acid (aa) signal sequence, a 362 aa pro region and a 120 aa C-terminal mature peptide. Mature GDF-5 is a homodimeric protein which contains the characteristic seven conserved cysteine residues. GDF-5, GDF-6 and GDF-7, which share 80-86% identity, define a subgroup within the BMP family. Like other TGF-β superfamily proteins, GDF-5 is highly conserved across species. At the amino acid sequence level, mature human and mouse GDF-5 are 98% identical. It has been reported that GDF-5 has multiple functions including regulation of myogenesis, regulation of chondrogenesis, bone morphogenesis, and neuron differentiation and survival. GDF-5 response is mediated by the formation of hetero-oligomeric complexes of type I (BMPR-IB) and type II (BMPR-II or Activin R-II) sereine/threonine kinase receptors, and the activation of Smad proteins (Smad 1, 5, and 8).

PRODUCT SPECIFIC NOTICES

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