

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse GDF-7 in direct ELISAs and Western blots. In these formats, approximately 10% cross-reactivity with recombinant mouse (rm) GDF-5 and rmGDF-6 is observed and less than 1% cross-reactivity with rmGDF-1, rmGDF-3, rmGDF-8, rmGDF-9
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse GDF-7 (R&D Systems, Catalog # 779-G7) Thr316-Arg461 Accession # P43029
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.

Western Blot 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 7 (GDF-7), also known as bone morphogenetic protein (BMP) 12 or cartilage derived morphogenetic protein 3 (CDMP-3), is a member of the bone morphogenetic protein (BMP) family which belongs to the transforming growth factor β (TGF- β) superfamily. Mature GDF-7 contains 146 aa residues with the characteristic seven conserved cysteine residues. The bioactive GDF-7 is a homodimer with an apparent molecular weight of approximately 28 kDa. Mature GDF-5, GDF-6 and GDF-7, which share 80 - 86% identity with each other, define a new subgroup within the BMP family. Like other TGF- β superfamily proteins, GDF-7 is highly conserved across species. At the amino acid sequence level, mature human and mouse GDF-7 are 98% identical. It has been reported that GDF-7 has multiple functions including regulation of chondrogenesis, bone morphogenesis, and neuron differentiation. GDF-7 response is mediated by the formation of hetero-oligomeric complexes of type I (BMPRI-B) and type II (BMPRII or Activin R-II) serine/threonine kinase receptors, and the activation of Smad proteins.

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