SunLong Biotech Co.,LTD
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[Marker Primary Antibody]

Rabbit Anti-BMP4/AF647 Conjugated antibody

Catalog Number: SL1374R-AF647

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-BMP4/AF647
Immunogen:	KLH conjugated synthetic peptide derived from human BMP4
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse,Sheep(predicted:Human,Rat)
Background:	background: BMPs (bone morphogenetic proteins) belong to the TGF beta superfamily of structurally related signaling proteins. Members of this superfamily are widely represented throughout the animal kingdom and have been implicated in a variety of developmental processes. Proteins of the TGF beta superfamily are disulfide-linked dimers composed of two 12-15 kDa polypeptide chains. As implied by their name, BMPs initiate, promote and regulate bone development, growth, remodeling and repair. Smad1 translocation to the nucleus is observed after the addition of BMP4 (also designated BMP2B), suggesting that BMP4 may play a role in activation of the Smad pathway. BMP is secreted into the extracellular matrix. **Function:** Induces cartilage and bone formation. Also act in mesoderm induction, tooth development, limb formation and fracture repair. Acts in concert with PTHLH/PTHRP to stimulate ductal outgrowth during embryonic mammary development and to inhibit hair follicle induction. **Subunit:** Homodimer; disulfide-linked. Interacts with GREM2. Part of a complex consisting of TWSG1 and CHRD. Interacts with the serine proteases,

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	HTRA1 and HTRA3; the interaction with either inhibits BMP4-mediated signaling. The HTRA protease activity is required for this inhibition. Interacts with SOSTDC1. **Subcellular Location:** Secreted, extracellular space, extracellular matrix. **Tissue Specificity:** Expressed in the lung and lower levels seen in the kidney. Present also in normal and neoplastic prostate tissues, and prostate cancer cell lines. DISEASE: Microphthalmia, syndromic, 6 (MCOPS6) [MIM:607932]: A disease characterized by microphthalmia/anophthalmia associated with facial, genital, skeletal, neurologic and endocrine anomalies. Microphthalmia is a disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues (anophthalmia). In many cases, microphthalmia/anophthalmia occurs in association with syndromes that include non-ocular abnormalities. Note=The disease is caused by mutations affecting the gene represented in this entry. Non-syndromic orofacial cleft 11 (OFC11) [MIM:600625]: A birth defect consisting of cleft lips with or without cleft palate. Cleft lips are associated with cleft palate in two-third of cases. A cleft lip can occur on one or both sides and range in severity from a simple notch in the upper lip to a complete opening in the lip extending into the floor of the nostril and involving the upper gum. Note=The disease is caused by mutations affecting the gene represented in this entry. **Similarity:** Belongs to the TGF-beta family. **Database links:** **Entrez Gene:** 407216 Cow **Entrez Gene:** 652 Human **Entrez Gene:** 12159 Mouse **Entrez Gene:** 100113425 Pig **Entrez Gene:** 25296 Rat Omim: 112262 Human **SwissProt:** Q2KJH1 Cow **SwissProt:** P12644 Human **SwissProt:** P21275 Mouse **SwissProt:** Q06826 Rat **Unigene:** 68879 Human **Unigene:** 6813 Mouse **Unigene:** 10318 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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	Bone morphogenetic protein-4 (BMP4) is a member of the transforming growth factorβsuperfamily and is also involved in organogenesis, cell proliferation, differentiation, and apoptosis。

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