10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

phospho-SOX9 (Ser181) Rabbit pAb

Catalog # AP98059

Product Information

Application	IHC-P, IHC-F, IF
Reactivity	Mouse
Predicted	Rat, Pig, Human, Rabbit, Chicken, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60 KDa
Physical State	Liquid
Immunogen	KLH conjugated Synthesised phosphopeptide derived from human SOX9 around the phosphorylation site of Ser181
Epitope Specificity	RK(p-S)VK
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 1 HMG box DNA-binding domain.
SUBUNIT	Interacts with the sumoylation factors ube2i/ubc9 and sumo1.
Post-translational modifications	Sumoylated. Lys-365 is the major site of sumoylation, although sumoylation at Lys-61 also occurs. Sumoylation plays a key role in regulating formation of the neural crest and otic placode.
DISEASE	Defects in SOX9 are the cause of campomelic dysplasia (CMD1) [MIM:114290]. CMD1 is a rare, often lethal, dominantly inherited, congenital osteochondrodysplasia, associated with male-to-female autosomal sex reversal in two-thirds of the affected karyotypic males. A disease of the newborn characterized by congenital bowing and angulation of long bones, unusually small scapulae, deformed pelvis and spine and a missing pair of ribs. Craniofacial defects such as cleft palate, micrognatia, flat face and hypertelorism are common. Various defects of the ear are often evident, affecting the cochlea, malleus incus, stapes and tympanum. Most patients die soon after birth due to respiratory distress which has been attributed to hypoplasia of the tracheobronchial cartilage and small thoracic cage. Defects in SOX9 are the cause of 46,XX sex reversal type 2 (SRXX2) [MIM:278850]. SRXX2 is a condition in which male gonads develop in a genetic female (female to male sex reversal).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	May be involved in chondrogenesis (cartilage development) during bone formation. Unlikely to play a role in sex determination but may function during testicular and ovarian differentiation (By similarity). Transcriptional activator. Acts early in neural crest formation, functioning redundantly with the other group E Sox factors sox8 and sox10 to induce neural crest progenitors. Induces sox10 expression downstream of wnt-signaling. Principally involved in development of the cranial neural crest, which is fated to form skeletal elements. Also required for otic placode specification during inner ear development.

Additional Information

Gene ID	6662
Other Names	jef; wu:fj17b12; zgc:111921; Q9DFH2_DANRE; sox9a; CMD1; CMPD1; ENH13; SRA1; SRXX2; SRXY10; TES; TESCO; SRY-box transcription factor 9; campomelic dysplasia, autosomal sex-reversal; SRY (sex determining region Y)-box 9; SRY-box 9; SOX9 (phospho-S181); p-SOX9; phospho-SOX9; SOX9 (phospho-Ser181)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Name	phospho-SOX9 (Ser181) Rabbit pAb
Function	Plays an important role in the normal skeletal development. May regulate the expression of other genes involved in chondrogenesis by acting as a transcription factor for these genes.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.