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Six2 Recombinant Rabbit mAb

Catalog # AP99574

Product Information

Application	WB, IHC-P, IHC-F, IF, IP, E
Primary Accession	Q9NPC8
Other Accession	Q9NPC8
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Recombinant
Calculated MW	32286
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the SIX/Sine oculis homeobox family. Contains 1 homeobox DNA-binding domain.
Background Descriptions	This gene is a member of the vertebrate gene family which encode proteins homologous to the Drosophila 'sine oculis' homeobox protein. The encoded protein is a transcription factor which, like other members of this gene family, may be involved in limb or eye development. [provided by RefSeq, Dec 2008],

Additional Information

Gene ID	10736
Other Names	SIX2_HUMAN; SIX2; Sine oculis homeobox homolog 2; SIX2_MOUSE; SIX homeobox 2; sine oculis homeobox (Drosophila) homolog 2; sine oculis homeobox homolog 2 (Drosophila); Homeobox protein SIX2
Dilution	IHC-P=1:50-200,IHC-F=1:50-200,WB=1:500-2000,IF=1:50-200,ELISA=1:5000-10000,IP=1:50-200
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.

Protein Information

Name	SIX2
Function	Transcription factor that plays an important role in the development of several organs, including kidney, skull and stomach. During kidney development, maintains cap mesenchyme multipotent nephron progenitor cells in an undifferentiated state by opposing the inductive signals emanating

	from the ureteric bud and cooperates with WNT9B to promote renewing progenitor cells proliferation. Acts through its interaction with TCF7L2 and OSR1 in a canonical Wnt signaling independent manner preventing transcription of differentiation genes in cap mesenchyme such as WNT4. Also acts independently of OSR1 to activate expression of many cap mesenchyme genes, including itself, GDNF and OSR1. During craniofacial development plays a role in growth and elongation of the cranial base through regulation of chondrocyte differentiation. During stomach organogenesis, controls pyloric sphincter formation and mucosal growth through regulation of a gene network including NKX2-5, BMPR1B, BMP4, SOX9 and GREM1. During branchial arch development, acts to mediate HOXA2 control over the insulin-like growth factor pathway. May also be involved in limb tendon and ligament development (By similarity). Plays a role in cell proliferation and migration.
Cellular Location	Nucleus {ECO:0000250|UniProtKB:Q62232}.
Tissue Location	Strongly expressed in skeletal muscle. Expressed in Wilms' tumor and in the cap mesenchyme of fetal kidney (at protein level).

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