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[Primary Antibody]

Rabbit Anti-FOX C2 antibody

Catalog Number: SL8730R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	FOX C2
Immunogen:	KLH conjugated synthetic peptide derived from human FOX C2: 101-200/501
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse(predicted:Human,Rat,Chicken,Cow)
Predicted MW.:	53kDa
Subcellular Location:	The nucleus
Background:	FOXC2 is a member of forkhead/winged helix transcription factor family, whose members serve as key regulators in embryogenesis and cell differentiation (3). FOXC2 functions as a key regulator of adipocyte metabolism by increasing the sensitivity of the beta-adrenergic-cAMP-protein kinase A (PKA) signaling pathway through alteration of adipocyte PKA holoenzyme composition (4). Increased FOXC2 levels, induced by high fat diet, seem to counteract most of the symptoms associated with obesity (4). FOXC2 expression is also associated with the early stage of chondrogenic differentiation both in vivo and in vitro (3). FOXC2 haploinsufficiency results in Lymphedema-distichiasis (LD), an autosomal dominant disorder that classically presents as lymphedema of the limbs, and double rows of eyelashes (distichiasis) (5). Mutant mice null for FOXC2 show defects in axial and cranial skeletogenesis, suggesting a requirement of FOXC2 for skeletal tissue development (3). FOXC2 interacts with FOXC1 in the Notch signaling pathway (1) and in

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	kidney and heart development (2). **Function:** Transcriptional activator. Might be involved in the formation of special mesenchymal tissues. **Subcellular Location:** Nucleus. DISEASE: Defects in FOXC2 are the cause of lymphedema hereditary type 2 (LMPH2) [MIM:153200]; also known as Meige lymphedema. Hereditary lymphedema is a chronic disabling condition which results in swelling of the extremities due to altered lymphatic flow. Patients with lymphedema suffer from recurrent local infections, and physical impairment. Defects in FOXC2 are a cause of lymphedema-yellow nails (LYYN) [MIM:153300]. LYYN is characterized by yellow, dystrophic, thick and slowly growing nails, associated with lymphedema and respiratory involvement. Lymphedema occurs more often in the lower limbs. It can appear at birth or later in life. Onset generally follows the onset of ungual abnormalities. Defects in FOXC2 are a cause of lymphedema-distichiasis (LYD) [MIM:153400]. LYD is characterized by primary limb lymphedema usually starting at puberty (but in some cases later or at birth) and associated with distichiasis (double rows of eyelashes, with extra eyelashes growing from the Meibomian gland orifices). **Similarity:** Contains 1 fork-head DNA-binding domain. **Database links:** **Entrez Gene:** 2303 Human **Entrez Gene:** 14234 Mouse **Entrez Gene:** 171356 Rat Omim: 602402 Human **SwissProt:** Q99958 Human **SwissProt:** Q61850 Mouse **SwissProt:** Q63246 Rat **Unigene:** 436448 Human **Unigene:** 14092 Mouse **Unigene:** 216723 Rat

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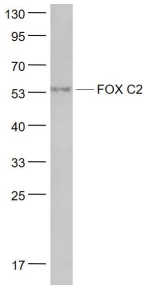
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[VALIDATION IMAGES]



Sample:
Cerebellum (Mouse) Lysate at 40 ug
Primary: Anti- FOX C2 (SL8730R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 53 kD
Observed band size:53 kD

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