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FOX C2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP59076

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q99958
Reactivity	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53719
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human FOX C2
Epitope Specificity	101-200/501
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus.
SIMILARITY	Contains 1 fork-head DNA-binding domain.
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).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 kidney and heart development (2).

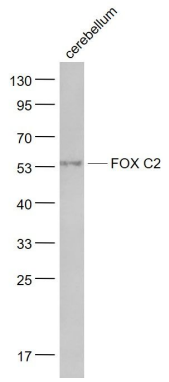
Additional Information

Gene ID	2303
Other Names	Forkhead box protein C2, Forkhead-related protein FKHL14, Mesenchyme fork head protein 1, MFH-1 protein, Transcription factor FKH-14, FOXC2, FKHL14, MFH1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	FOXC2
Synonyms	FKHL14, MFH1
Function	Transcriptional activator.
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00089, ECO:0000269|PubMed:23878394, ECO:0000269|PubMed:28179430}

Images



Sample:
Cerebellum (Mouse) Lysate at 40 ug
Primary: Anti- FOX C2 (AP59076) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 53 kD
Observed band size:53 kD