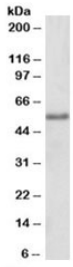
FOXC1 Antibody (R33387)

Catalog No.	Formulation	Size
R33387-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Pig
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	2296
Applications	Western Blot : 2-4ug/ml ELISA (peptide) LOD : 1:32000
Limitations	This FOXC1 antibody is available for research use only.



Western blot testing of HEK293 lysate with FOXC1 antibody at 2ug/ml. Predicted molecular weight: ~57 kDa, routinely observed at up to 75 kDa.

Description

FOXC1 Antibody detects Forkhead Box C1 (FOXC1), a member of the forkhead box family of transcription factors that regulates gene expression programs involved in embryonic development, tissue patterning, and cellular differentiation. FOXC1 functions as a sequence-specific DNA-binding protein that controls transcriptional networks governing cell fate determination, morphogenesis, and maintenance of tissue identity. Because of its central role in developmental biology, FOXC1 has become an important marker for studies of organogenesis, stem cell regulation, and developmental signaling

pathways. FOXC1 Antibody is widely used to investigate transcriptional mechanisms that influence vertebrate development and tissue homeostasis.

FOXC1 contains a conserved forkhead DNA-binding domain that enables interaction with regulatory regions of target genes. Through transcriptional control of downstream signaling cascades, FOXC1 contributes to the formation and maintenance of multiple organ systems, including ocular, cardiovascular, skeletal, and mesenchymal tissues. The protein plays a critical role in coordinating developmental programs that regulate cellular migration, proliferation, and differentiation during embryogenesis.

In addition to its developmental functions, FOXC1 participates in the regulation of stem cell-associated pathways and cellular plasticity. Expression of FOXC1 has been linked to maintenance of progenitor cell populations and modulation of transcriptional programs that influence tissue remodeling and regeneration. These activities have made FOXC1 a valuable target for investigations of cellular identity and lineage specification.

Altered FOXC1 expression has been associated with numerous pathological conditions, including developmental abnormalities, fibrosis, and cancer. Dysregulation of FOXC1-dependent transcriptional networks may contribute to tumor progression, invasive behavior, and changes in cellular differentiation status. As a result, FOXC1 is frequently examined in studies of disease-associated transcriptional regulation and signaling pathway alterations.

FOXC1 Antibody is useful for researchers studying developmental biology, stem cell biology, transcriptional regulation, tissue patterning, organogenesis, cellular differentiation, and cancer-associated signaling pathways. Applications may include immunohistochemistry, western blotting, immunofluorescence, flow cytometry, and related protein expression analyses when supported by validation data.

Learn more about FOXC1 expression, developmental transcriptional regulation, tissue patterning, and stem cell-associated signaling on our FOXC1 Antibody / Forkhead Transcription Factor Antibody page.

Application Notes

Optimal dilution of the FOXC1 antibody should be determined by the researcher.

Immunogen

Amino acids DAVKDKEEKDRLH were used as the immunogen for this FOXC1 antibody.

Storage

Aliquot and store the FOXC1 antibody at -20oC.

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