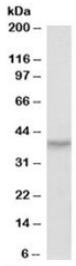
HOXA10 Antibody / Developmental Transcription Factor Antibody (R35106)

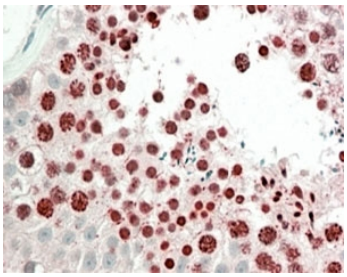
Catalog No.	Formulation	Size
R35106-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

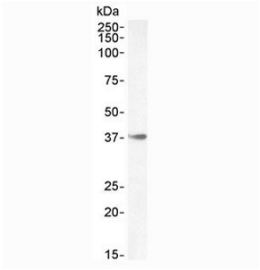
Availability	1-3 business days
Species Reactivity	Human, Mouse
Predicted Reactivity	Pig, Cow
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
UniProt	P31260
Gene ID	3206
Applications	Western Blot : 0.2-0.6ug/ml Immunohistochemistry (FFPE) : 5-10ug/ml ELISA (peptide) LOD : 1:32000
Limitations	This HOXA10 Antibody / Developmental Transcription Factor Antibody is available for research use only.



HOXA10 Antibody Human Skeletal Muscle WB. Western blot analysis of HOXA10 expression was performed using anti-HOXA10 antibody in human skeletal muscle lysate. HOXA10 is a homeobox transcription factor that regulates developmental gene expression, cellular differentiation, and tissue patterning during embryogenesis, while also contributing to stem cell maintenance and adult tissue homeostasis. A specific immunoreactive band is detected at approximately 42 kDa, consistent with the predicted molecular weight of HOXA10. These results support the utility of HOXA10 Antibody for studies of developmental transcriptional regulation, stem cell biology, tissue differentiation, and vertebrate development.



HOXA10 Antibody Human Testis IHC. IHC staining of FFPE human testis with HOXA10 antibody demonstrated strong nuclear staining in germ cells within the seminiferous tubules, consistent with the role of HOXA10 as a homeobox transcription factor that regulates developmental gene expression and cellular differentiation. HOXA10 is best known for its essential functions during embryogenesis and reproductive tract development, while continued expression in adult reproductive tissues supports roles in germ cell biology, fertility, and tissue homeostasis. The predominantly nuclear staining pattern is consistent with the transcriptional regulatory function of HOXA10. HIER was performed by steaming tissue sections in pH 6 citrate buffer prior to AP-based detection. These results support the utility of HOXA10 Antibody for studies of developmental biology, reproductive biology, stem cell regulation, and transcriptional control.



HOXA10 Antibody Mouse Skeletal Muscle WB. Western blot analysis of HOXA10 expression was performed using anti-HOXA10 antibody in mouse skeletal muscle lysate. HOXA10 is a homeobox transcription factor that regulates developmental gene expression, tissue differentiation, and anterior-posterior patterning during embryogenesis, while also contributing to stem cell function and adult tissue homeostasis. A specific immunoreactive band is detected at approximately 42 kDa, consistent with the predicted molecular weight of HOXA10. These results demonstrate cross-species reactivity and support the utility of HOXA10 Antibody for studies of developmental transcriptional regulation, stem cell biology, skeletal muscle development, and vertebrate morphogenesis.

Description

HOXA10 Antibody / Developmental Transcription Factor Antibody recognizes HOXA10, a member of the highly conserved HOX family of homeobox transcription factors that regulate embryonic development, body patterning, and tissue differentiation. HOXA10 functions as a sequence-specific DNA-binding protein that controls the expression of genes responsible for establishing positional identity along the anterior-posterior axis during embryogenesis. Through precise regulation of developmental transcriptional programs, HOXA10 directs morphogenesis of the axial skeleton, reproductive tract, kidneys, and other developing tissues. As a master developmental regulator, HOXA10 is essential for normal vertebrate organogenesis and cellular differentiation.

HOXA10 continues to play important biological roles after embryonic development, particularly within the female reproductive system where it regulates endometrial differentiation, uterine receptivity, embryo implantation, and fertility. The protein also contributes to hematopoietic stem cell maintenance, mesenchymal differentiation, tissue remodeling, and regeneration. Expression of HOXA10 is tightly controlled by developmental signaling pathways and epigenetic mechanisms, allowing appropriate activation of lineage-specific gene expression programs during both development and adult tissue homeostasis. Because of these diverse functions, HOXA10 Antibody / Developmental Transcription Factor Antibody is a valuable tool for investigations of developmental biology, reproductive biology, and transcriptional regulation.

Abnormal HOXA10 expression has been implicated in numerous diseases including endometriosis, infertility, leukemia, ovarian cancer, endometrial carcinoma, colorectal cancer, and acute myeloid leukemia. Dysregulated HOXA10 activity can alter cell proliferation, differentiation, migration, and stem cell function, contributing to disease progression and tumor development. Consequently, HOXA10 has emerged as both a clinically relevant biomarker and a potential therapeutic target in reproductive medicine, developmental disorders, and oncology. Ongoing research continues to define its role in regulating gene expression networks that govern normal development and disease.

HOXA10 Antibody / Developmental Transcription Factor Antibody supports studies of embryonic development, transcriptional regulation, reproductive biology, stem cell biology, developmental signaling, and cancer research. Researchers frequently use HOXA10 Antibody / Developmental Transcription Factor Antibody to investigate HOX gene function, tissue specification, organogenesis, and mechanisms controlling cellular differentiation. Its central role in

developmental gene regulation makes HOXA10 an important marker for both basic and translational biomedical research.

Explore our Stem Cell Antibodies page to learn more about proteins that regulate stem cell maintenance, cellular differentiation, and developmental gene expression.

Application Notes

Optimal dilution of the HOXA10 Antibody / Developmental Transcription Factor Antibody should be determined by the researcher.

Immunogen

Amino acids PQATSCSFAQNIKE were used as the immunogen for this HOXA10 antibody.

Storage

Aliquot and store the HOXA10 antibody at -20oC.

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