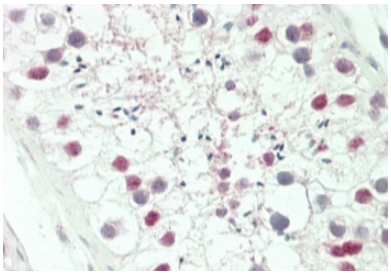
HOXA3 Antibody / Homeobox Protein Hox-A3 Antibody (F55048)

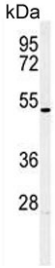
Catalog No.	Formulation	Size
F55048-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F55048-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

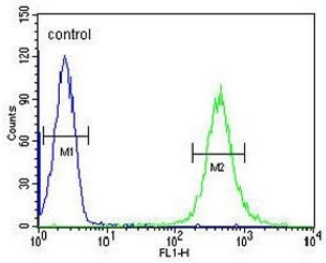
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity purified
UniProt	O43365
Applications	Flow cytometry: 1:10-1:50 (1x10e6 cells) Immunohistochemistry (FFPE): 1:50-1:100 Western blot: 1:500-1:1000
Limitations	This HOXA3 Antibody / Homeobox Protein Hox-A3 Antibody is available for research use only.



HOXA3 Antibody Human Testis IHC. IHC staining of FFPE human testis tissue with HOXA3 antibody demonstrated predominantly nuclear staining in germ cells within the seminiferous tubules, consistent with the localization of HOXA3 as a homeobox transcription factor that regulates developmental gene expression and cellular differentiation. Although HOXA3 is best known for its essential role in embryonic patterning and organogenesis, continued expression in adult reproductive tissues supports functions in germ cell development, tissue homeostasis, and reproductive biology. The nuclear staining pattern is consistent with the transcriptional regulatory activity of HOXA3. HIER was performed by steaming tissue sections in pH 6 citrate buffer for 20 minutes followed by cooling prior to staining. These results support the utility of HOXA3 Antibody for studies of developmental biology, reproductive biology, transcriptional regulation, and stem cell function.



HOXA3 Antibody Human HL60 WB. Western blot analysis of HOXA3 expression was performed using anti-HOXA3 antibody in human HL60 cell lysate. HOXA3 is a homeobox transcription factor that regulates developmental gene expression, embryonic patterning, tissue specification, and cellular differentiation during vertebrate development. A specific immunoreactive band is detected at approximately 46 kDa, consistent with the predicted molecular weight of HOXA3. Expression in HL60 promyelocytic leukemia cells is consistent with the recognized involvement of HOXA3 in hematopoietic development and the dysregulation of HOX transcription factors in leukemia. These results support the utility of HOXA3 Antibody for studies of developmental transcriptional regulation, hematopoiesis, stem cell biology, and cancer research.



HOXA3 Antibody Human HL60 Flow Cytometry. Flow cytometric analysis of human HL60 cells using HOXA3 antibody demonstrated a clear rightward shift in fluorescence intensity (green) compared with the isotype control (blue), indicating specific detection of HOXA3 expression. HOXA3 is a homeobox transcription factor that regulates developmental gene expression, hematopoietic differentiation, and cellular lineage specification. Expression in HL60 promyelocytic leukemia cells is consistent with the established role of HOXA3 and other HOX family members in hematopoiesis and leukemia biology. These results support the utility of HOXA3 Antibody for flow cytometric analysis of HOXA3 expression in studies of developmental transcriptional regulation, stem cell biology, hematopoiesis, and cancer research.

Description

HOXA3 Antibody / Homeobox Protein Hox-A3 Antibody recognizes HOXA3, a highly conserved member of the HOX family of homeobox transcription factors that directs embryonic patterning, tissue specification, and organ development. HOXA3 functions as a sequence-specific DNA-binding protein that regulates transcriptional programs controlling anterior-posterior body axis formation, cellular differentiation, and morphogenesis during vertebrate embryogenesis. Through activation and repression of downstream developmental genes, HOXA3 establishes positional identity required for normal formation of the pharyngeal arches, craniofacial structures, cardiovascular system, and nervous system. This antibody is well suited for investigating HOXA3 expression in studies of developmental biology and transcriptional regulation.

Beyond its developmental functions, HOXA3 contributes to angiogenesis, tissue repair, stem cell regulation, and wound healing. The protein promotes vascular remodeling and influences progenitor cell function during regeneration while maintaining tightly regulated expression in adult tissues. Because HOXA3 integrates developmental signaling with transcriptional control, it has become an important marker for investigations of vascular biology, regenerative medicine, and mechanisms governing cellular differentiation.

Aberrant HOXA3 expression has been associated with developmental abnormalities, impaired tissue regeneration, leukemia, pancreatic cancer, colorectal cancer, and other malignancies. Dysregulation of HOXA3-dependent transcriptional networks can alter proliferation, migration, differentiation, and angiogenesis, contributing to disease progression. Consequently, HOXA3 continues to be widely investigated as both a developmental regulator and a potential biomarker in cancer and regenerative biology. HOXA3 Antibody / Homeobox Protein Hox-A3 Antibody is an excellent tool for studies of embryonic development, developmental gene regulation, stem cell biology, angiogenesis, tissue remodeling, and cancer research.

Explore our HOXA3 Antibody / Developmental Patterning Transcription Factor Antibody page to learn more about this key regulator of embryonic development, tissue specification, and developmental gene expression.

Application Notes

The stated application concentrations are suggested starting points. Titration of the HOXA3 Antibody / Homeobox Protein Hox-A3 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 413-440 from the human protein was used as the immunogen for the HOXA3 antibody.

Storage

Aliquot the HOXA3 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

HOXA3 antibody, Homeobox Protein Hox-A3 antibody, HoxA3 antibody, Homeobox Transcription Factor antibody, Developmental Patterning Protein antibody, Homeobox Protein antibody

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