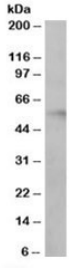
IRF6 Antibody / Epithelial Development Transcription Factor Antibody (R36249)

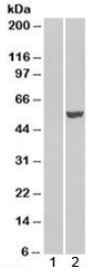
Catalog No.	Formulation	Size
R36249-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

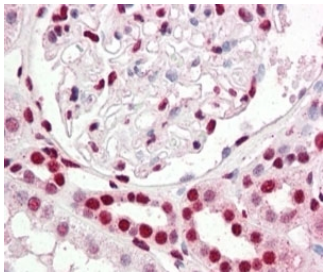
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	3664
Localization	Nuclear, cytoplasmic
Applications	Western blot: 0.2-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml ELISA (peptide) LOD: 1:32000
Limitations	This IRF6 Antibody / Epithelial Development Transcription Factor Antibody is available for research use only.



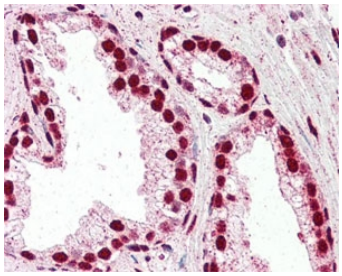
IRF6 Antibody Human Ovary WB. Western blot analysis of IRF6 expression was performed using anti-IRF6 antibody in human ovary lysate. IRF6, also known as Interferon Regulatory Factor 6, is a DNA-binding transcription factor that regulates epithelial differentiation, tissue morphogenesis, and developmental signaling. A specific immunoreactive band is detected at approximately 53/42 kDa, corresponding to the predicted molecular weights of IRF6 isoforms 1 and 2. Expression in ovarian tissue is consistent with the role of IRF6 in regulating cellular differentiation and maintaining epithelial homeostasis. These results support the utility of IRF6 Antibody for studies of developmental biology, epithelial differentiation, and transcriptional regulation.



IRF6 Antibody HEK293 Overexpression WB. Western blot analysis of IRF6 expression was performed using anti-IRF6 antibody in HEK293 cells transiently overexpressing IRF6. Lane 1: mock-transfected HEK293 lysate. Lane 2: IRF6-overexpressing HEK293 lysate. IRF6, also known as Interferon Regulatory Factor 6, is a DNA-binding transcription factor that regulates epithelial differentiation, tissue morphogenesis, and developmental signaling. A prominent immunoreactive band is detected at approximately 53 kDa in the IRF6-transfected sample, corresponding to the predicted molecular weight of IRF6 isoform 1 (~53 kDa). Minimal signal is observed in the mock-transfected control, supporting the specificity of IRF6 detection. These results support the utility of IRF6 Antibody for studies of developmental biology, epithelial differentiation, and transcriptional regulation.



IRF6 Antibody Human Kidney IHC. IHC staining of FFPE human kidney with IRF6 antibody demonstrated strong nuclear staining of renal tubular epithelial cells, consistent with the localization of IRF6 (Interferon Regulatory Factor 6), a DNA-binding transcription factor involved in epithelial differentiation and tissue homeostasis. IRF6 regulates gene expression programs that control cellular maturation, morphogenesis, and maintenance of epithelial integrity. The prominent nuclear staining observed in renal tubules is consistent with the role of IRF6 as a transcriptional regulator in differentiated epithelial tissues. Immunostaining was performed with IRF6 antibody at 2.5 ug/ml using an alkaline phosphatase detection system. Heat-induced epitope retrieval was achieved by steaming tissue sections in pH 6 citrate buffer prior to staining.



IRF6 Antibody Human Prostate IHC. IHC staining of FFPE human prostate tissue with IRF6 antibody demonstrated strong nuclear staining of glandular epithelial cells, consistent with the localization of IRF6 (Interferon Regulatory Factor 6), a DNA-binding transcription factor involved in epithelial differentiation and tissue morphogenesis. IRF6 regulates gene expression programs that maintain epithelial integrity and cellular homeostasis. The prominent nuclear staining observed in prostatic epithelium is consistent with the established role of IRF6 in differentiated epithelial tissues and transcriptional control. Immunostaining was performed with IRF6 antibody at 2.5 ug/ml using an alkaline phosphatase detection system. Heat-induced epitope retrieval was achieved by steaming tissue sections in pH 6 citrate buffer prior to staining.

Description

IRF6 Antibody / Epithelial Development Transcription Factor Antibody recognizes interferon regulatory factor 6 (IRF6), a member of the interferon regulatory factor family of DNA-binding transcription factors. Unlike other IRF proteins that primarily regulate antiviral responses and interferon signaling, IRF6 functions predominantly in epithelial development, differentiation, and tissue morphogenesis. IRF6 is expressed in stratified epithelia and plays critical roles in the formation and maintenance of the skin, oral mucosa, and craniofacial structures. IRF6 Antibody / Epithelial Development Transcription Factor Antibody provides a valuable tool for investigating developmental pathways that govern epithelial homeostasis and tissue architecture.

IRF6 regulates the balance between cellular proliferation and differentiation through interactions with signaling pathways involving TP63, Notch, and epidermal growth factor receptors. Proper IRF6 activity is essential for keratinocyte maturation, epidermal barrier formation, and normal craniofacial development. In addition to its developmental functions, IRF6 contributes to wound healing and tissue repair by promoting epithelial migration and differentiation. IRF6 Antibody / Epithelial Development Transcription Factor Antibody is useful for studies of epithelial biology and mechanisms controlling tissue regeneration and morphogenesis.

Mutations in IRF6 are responsible for Van der Woude syndrome and popliteal pterygium syndrome, two inherited disorders characterized by cleft lip, cleft palate, and abnormalities of epithelial development. Defects in IRF6 signaling

disrupt tissue fusion events during embryogenesis and impair epithelial differentiation. Animal models, including zebrafish and mice, have been instrumental in elucidating the molecular pathways controlled by IRF6. Emerging evidence also suggests that altered IRF6 expression may contribute to tumor progression and epithelial-mesenchymal transition in certain cancers. Consequently, IRF6 Antibody / Epithelial Development Transcription Factor Antibody has become increasingly important for developmental biology and disease research.

IRF6 Antibody / Epithelial Development Transcription Factor Antibody is widely used for investigations of craniofacial development, epidermal differentiation, wound healing, and congenital disorders affecting epithelial tissues. It supports studies of transcriptional regulation, tissue morphogenesis, and mechanisms underlying cleft lip and palate formation. IRF6 Antibody / Epithelial Development Transcription Factor Antibody provides a valuable reagent for examining normal epithelial biology and diseases associated with abnormal developmental signaling.

Learn more about proteins involved in nuclear signaling, transcriptional regulation, and developmental gene expression in our Transcription Factor Antibodies for Nuclear Signaling and Gene Regulation page.

Application Notes

Optimal dilution of the IRF6 Antibody / Epithelial Development Transcription Factor Antibody should be determined by the researcher.

Immunogen

Amino acids TPSMQLPPALPPQ were used as the immunogen for this IRF6 antibody. The sequence is common to isoforms 1 and 2.

Storage

Aliquot and store the IRF6 antibody at -20oC.

Alternate Names

IRF6 antibody, Interferon Regulatory Factor 6 antibody, IRF-6 antibody, Developmental Transcription Factor antibody, Epithelial Differentiation Factor antibody, Cleft Lip and Palate Protein antibody

Copyright © NSJ Bioreagents. All rights reserved.