

**Goat Anti-FOXN1 Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1433a****Specification**

---

**Goat Anti-FOXN1 Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">O15353</a>
Other Accession	<a href="#">NP_003584</a> , <a href="#">8456</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	68925

**Goat Anti-FOXN1 Antibody - Additional Information****Gene ID** 8456**Other Names**

Forkhead box protein N1, Winged-helix transcription factor nude, FOXN1, RONU, WHN

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-FOXN1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-FOXN1 Antibody - Protein Information****Name** FOXN1**Synonyms** RONU, WHN**Function**

Transcriptional regulator which regulates the development, differentiation, and function of thymic epithelial cells (TECs) both in the prenatal and postnatal thymus. Acts as a master regulator of the TECs lineage development and is required from the onset of differentiation in progenitor TECs in the developing fetus to the final differentiation steps through which TECs mature to acquire their full functionality. Regulates, either directly or indirectly the expression of a variety of genes that

mediate diverse aspects of thymus development and function, including MHC Class II, DLL4, CCL25, CTSL, CD40 and PAX1. Regulates the differentiation of the immature TECs into functional cortical TECs (cTECs) and medullary TECs (mTECs). Essential for maintenance of mTECs population in the postnatal thymus. Involved in the morphogenesis and maintenance of the three-dimensional thymic microstructure which is necessary for a fully functional thymus. Plays an important role in the maintenance of hematopoiesis and particularly T lineage progenitors within the bone marrow niche with age. Essential for the vascularization of the thymus anlage. Promotes the terminal differentiation of epithelial cells in the epidermis and hair follicles, partly by negatively regulating the activity of protein kinase C (By similarity). Plays a crucial role in the early prenatal stages of T-cell ontogeny (PubMed:<a href="http://www.uniprot.org/citations/21507891" target="\_blank">21507891</a>).

**Cellular Location**

Nucleus.

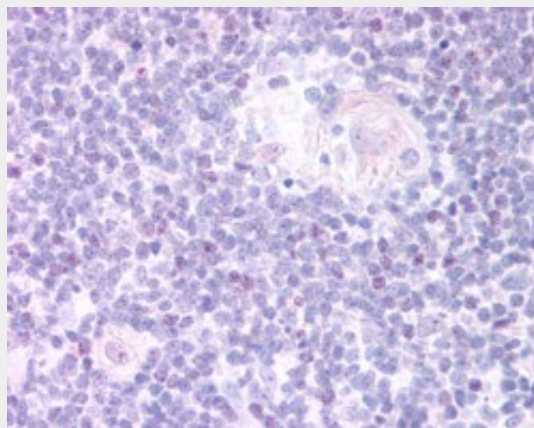
**Tissue Location**

Expressed in thymus.

**Goat Anti-FOXN1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Goat Anti-FOXN1 Antibody - Images**

AF1433a (20 µg/ml) staining of paraffin embedded Human Thymus Medulla. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

**Goat Anti-FOXN1 Antibody - Background**

Mutations in the winged-helix transcription factor gene at the nude locus in mice and rats produce the pleiotropic phenotype of hairlessness and athymia, resulting in a severely compromised immune system. This gene is orthologous to the mouse and rat genes and encodes a similar

DNA-binding transcription factor that is thought to regulate keratin gene expression. A mutation in this gene has been correlated with T-cell immunodeficiency, the skin disorder congenital alopecia, and nail dystrophy. Alternative splicing in the 5' UTR of this gene has been observed.

### **Goat Anti-FOXN1 Antibody - References**

Maternal genes and facial clefts in offspring: a comprehensive search for genetic associations in two population-based cleft studies from Scandinavia. Jugessur A, et al. PLoS One, 2010 Jul 9. PMID 20634891.

Human clinical phenotype associated with FOXN1 mutations. Pignata C, et al. Adv Exp Med Biol, 2009. PMID 20429426.

A positive FGFR3/FOXN1 feedback loop underlies benign skin keratosis versus squamous cell carcinoma formation in humans. Mandinova A, et al. J Clin Invest, 2009 Oct. PMID 19729838.

Dedicated epithelial recipient cells determine pigmentation patterns. Weiner L, et al. Cell, 2007 Sep 7. PMID 17803914.

Diagnostic utility of thymic epithelial markers CD205 (DEC205) and Foxn1 in thymic epithelial neoplasms. Nonaka D, et al. Am J Surg Pathol, 2007 Jul. PMID 17592270.