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GRHL2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13148c

Specification

GRHL2 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q6ISB3
Other Accession	Q8K5C0, NP_079191.2
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**71105**
Antigen Region	**409-438**

GRHL2 Antibody (Center) - Additional Information

Gene ID 79977

Other Names
Grainyhead-like protein 2 homolog, Brother of mammalian grainyhead, Transcription factor CP2-like 3, GRHL2, BOM, TFCP2L3

Target/Specificity
This GRHL2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 409-438 amino acids from the Central region of human GRHL2.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

Precautions
GRHL2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

GRHL2 Antibody (Center) - Protein Information

Name GRHL2

Synonyms BOM, TFCP2L3

Function Transcription factor playing an important role in primary neurulation and in epithelial development (PubMed:25152456, PubMed:29309642). Binds directly to the consensus DNA sequence 5'- AACCGGTT-3' acting as an activator and repressor on distinct target genes (By similarity). During embryogenesis, plays unique and cooperative roles with GRHL3 in establishing distinct zones of primary neurulation. Essential for closure 3 (rostral end of the forebrain), functions cooperatively with GRHL3 in closure 2 (forebrain/midbrain boundary) and posterior neuropore closure (By similarity). Regulates epithelial morphogenesis acting as a target gene-associated transcriptional activator of apical junctional complex components. Up- regulates of CLDN3 and CLDN4, as well as of RAB25, which increases the CLDN4 protein and its localization at tight junctions (By similarity). Comprises an essential component of the transcriptional machinery that establishes appropriate expression levels of CLDN4 and CDH1 in different types of epithelia. Exhibits functional redundancy with GRHL3 in epidermal morphogenetic events and epidermal wound repair (By similarity). In lung, forms a regulatory loop with NKX2-1 that coordinates lung epithelial cell morphogenesis and differentiation (By similarity). In keratinocytes, plays a role in telomerase activation during cellular proliferation, regulates TERT expression by binding to TERT promoter region and inhibiting DNA methylation at the 5'-CpG island, possibly by interfering with DNMT1 enzyme activity (PubMed:19015635, PubMed:20938050). In addition, impairs keratinocyte differentiation and epidermal function by inhibiting the expression of genes clustered at the epidermal differentiation complex (EDC) as well as GRHL1 and GRHL3 through epigenetic mechanisms (PubMed:23254293).

Cellular Location
Nucleus. Membrane. Note=detected at cell-cell contact areas.

Tissue Location
Expressed in keratinocytes (at protein level). Highly expressed in placenta, prostate, brain and kidney. Lower-level expression in a variety of epithelial tissues such as thymus, lung, salivary gland, mammary gland and digestive tract. Expressed in the cochlear. Expressed in corneal epithelial cells, but not in the endothelium or stroma (PubMed:29499165).

GRHL2 Antibody (Center) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GRHL2 Antibody (Center) - Images

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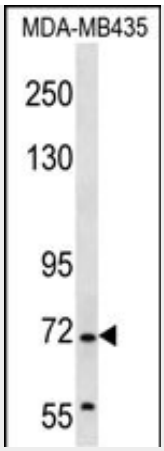

GRHL2 Antibody (Center) (Cat. #AP13148c) western blot analysis in MDA-MB435 cell line lysates (35ug/lane).This demonstrates the GRHL2 antibody detected the GRHL2 protein (arrow).

GRHL2 Antibody (Center) - Background

The protein encoded by this gene is a transcription factor that can act as a homodimer or as a heterodimer with either GRHL1 or GRHL3. Defects in this gene are a cause of non-syndromic sensorineural deafness autosomal dominant type 28 (DFNA28).

GRHL2 Antibody (Center) - References

Werth, M., et al. Development 137(22):3835-3845(2010)
Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Kang, X., et al. Oncogene 28(4):565-574(2009)
Tanaka, Y., et al. J. Hepatol. 49(5):746-757(2008)
Van Laer, L., et al. Hum. Mol. Genet. 17(2):159-169(2008)