

For Research Use Only

# RAI1 Polyclonal antibody, PBS Only

Catalog Number:17084-1-PBS



## Basic Information

**Catalog Number:**

17084-1-PBS

**Size:**

100ug, Concentration: 1 mg/ml by Nanodrop;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG9046

**GenBank Accession Number:**

BC021209

**GeneID (NCBI):**

10743

**UNIPROT ID:**

Q7Z5J4

**Full Name:**

retinoic acid induced 1

**Calculated MW:**

1906aa,203 kDa; 966aa,104 kDa

**Observed MW:**

250-260 kDa

**Purification Method:**

Antigen affinity purification

## Applications

**Tested Applications:**

WB, IHC, Indirect ELISA

**Species Specificity:**

human

## Background Information

The RAI1 (Retinoic Acid Induced 1) gene is located on the short arm of chromosome 17. The RAI1 protein it encodes is a crucial transcriptional regulator, playing a central role in processes such as neurodevelopment, sleep regulation, circadian rhythms, and energy metabolism. This protein contains a chromatin domain that binds to specific DNA sequences and recruits other transcriptional co-factors to activate or repress the expression of downstream target genes. The RAI1 gene is extremely sensitive to haploinsufficiency, and its dysfunction is closely linked to several severe neurodevelopmental disorders. For instance, RAI1 haploinsufficiency causes Smith-Magenis syndrome, while duplication of the RAI1 gene is associated with Potocki-Lupski syndrome. Consequently, the RAI1 protein is a key molecule for understanding brain function and behavioral regulation, and a major focus of research for related genetic syndromes.

## Storage

**Storage:**

Store at -80°C.

**Storage Buffer:**

PBS only, pH7.3

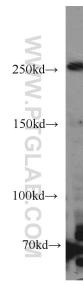
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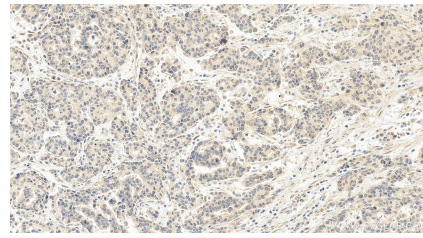
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## Selected Validation Data



HeLa cells were subjected to SDS PAGE followed by western blot with 17084-1-AP (RAI1 antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 17084-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 17084-1-AP (RAI1 antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 17084-1-PBS in a different storage buffer formulation.