

**Anti-HINT1 Picoband Antibody**  
Catalog # ABO12318

**Specification**

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**Anti-HINT1 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P49773</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Histidine triad nucleotide-binding protein 1(HINT1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-HINT1 Picoband Antibody - Additional Information**

**Gene ID** 3094

**Other Names**

Histidine triad nucleotide-binding protein 1, 3-.-.-, Adenosine 5'-monophosphoramidase, Protein kinase C inhibitor 1, Protein kinase C-interacting protein 1, PKCI-1, HINT1, HINT, PKCI1, PRKCNH1

**Calculated MW**

13802 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br><br>Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Cytoplasm. Nucleus. Interaction with CDK7 leads to a more nuclear localization.

**Tissue Specificity**

Widely expressed.

**Protein Name**

Histidine triad nucleotide-binding protein 1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence in the middle region of human HINT1 (59-92aa HISQISVAEDDDESLGHLMIVGKKCAADLGLNK), different from the related mouse and rat sequences by three amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage****At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.****Anti-HINT1 Picoband Antibody - Protein Information****Name** HINT1**Synonyms** HINT, PKC11, PRKCNH1**Function**

Exhibits adenosine 5'-monophosphoramidase activity, hydrolyzing purine nucleotide phosphoramidates with a single phosphate group such as adenosine 5'monophosphoramidate (AMP-NH<sub>2</sub>) to yield AMP and NH<sub>2</sub> (PubMed:<a href="http://www.uniprot.org/citations/15703176" target="\_blank">15703176</a>, PubMed:<a href="http://www.uniprot.org/citations/16835243" target="\_blank">16835243</a>, PubMed:<a href="http://www.uniprot.org/citations/17217311" target="\_blank">17217311</a>, PubMed:<a href="http://www.uniprot.org/citations/17337452" target="\_blank">17337452</a>, PubMed:<a href="http://www.uniprot.org/citations/22329685" target="\_blank">22329685</a>, PubMed:<a href="http://www.uniprot.org/citations/23614568" target="\_blank">23614568</a>, PubMed:<a href="http://www.uniprot.org/citations/28691797" target="\_blank">28691797</a>, PubMed:<a href="http://www.uniprot.org/citations/29787766" target="\_blank">29787766</a>, PubMed:<a href="http://www.uniprot.org/citations/31990367" target="\_blank">31990367</a>). Hydrolyzes adenosine 5'monophosphomorpholidate (AMP-morpholidate) and guanosine 5'monophosphomorpholidate (GMP-morpholidate) (PubMed:<a href="http://www.uniprot.org/citations/15703176" target="\_blank">15703176</a>, PubMed:<a href="http://www.uniprot.org/citations/16835243" target="\_blank">16835243</a>). Hydrolyzes lysyl-AMP (AMP-N-epsilon-(N-alpha-acetyl lysine methyl ester)) generated by lysine tRNA ligase, as well as Met- AMP, His-AMP and Asp-AMP, lysyl-GMP (GMP-N-epsilon-(N-alpha-acetyl lysine methyl ester)) and AMP-N-alanine methyl ester (PubMed:<a href="http://www.uniprot.org/citations/15703176" target="\_blank">15703176</a>, PubMed:<a href="http://www.uniprot.org/citations/17337452" target="\_blank">17337452</a>, PubMed:<a href="http://www.uniprot.org/citations/22329685" target="\_blank">22329685</a>). Hydrolyzes 3-indolepropionic acyl- adenylate, tryptamine adenosine phosphoramidate monoester and other fluorogenic purine nucleoside tryptamine phosphoramidates in vitro (PubMed:<a href="http://www.uniprot.org/citations/17217311" target="\_blank">17217311</a>, PubMed:<a href="http://www.uniprot.org/citations/17337452" target="\_blank">17337452</a>, PubMed:<a href="http://www.uniprot.org/citations/23614568" target="\_blank">23614568</a>, PubMed:<a href="http://www.uniprot.org/citations/28691797" target="\_blank">28691797</a>, PubMed:<a href="http://www.uniprot.org/citations/29787766" target="\_blank">29787766</a>, PubMed:<a href="http://www.uniprot.org/citations/31990367" target="\_blank">31990367</a>). Can also convert adenosine 5'-O- phosphorothioate and guanosine 5'-O-phosphorothioate to the corresponding nucleoside 5'-O-phosphates with concomitant release of hydrogen sulfide (PubMed:<a href="http://www.uniprot.org/citations/30772266" target="\_blank">30772266</a>). In addition, functions as scaffolding protein that modulates transcriptional activation by the LEF1/TCF1-CTNNB1 complex and by the complex formed with MITF and CTNNB1 (PubMed:<a href="http://www.uniprot.org/citations/16014379" target="\_blank">16014379</a>, PubMed:<a href="http://www.uniprot.org/citations/22647378" target="\_blank">22647378</a>). Modulates p53/TP53 levels and p53/TP53-mediated apoptosis (PubMed:<a href="http://www.uniprot.org/citations/16014379" target="\_blank">16014379</a>, PubMed:<a href="http://www.uniprot.org/citations/22647378" target="\_blank">22647378</a>).

href="http://www.uniprot.org/citations/16835243" target="\_blank">16835243</a>). Modulates proteasomal degradation of target proteins by the SCF (SKP2-CUL1-F-box protein) E3 ubiquitin-protein ligase complex (PubMed:<a href="http://www.uniprot.org/citations/19112177" target="\_blank">19112177</a>). Also exhibits SUMO- specific isopeptidase activity, deconjugating SUMO1 from RGS17 (PubMed:<a href="http://www.uniprot.org/citations/31088288" target="\_blank">31088288</a>). Deconjugates SUMO1 from RANGAP1 (By similarity).

#### Cellular Location

Cytoplasm. Nucleus. Note=Interaction with CDK7 leads to a more nuclear localization.

#### Tissue Location

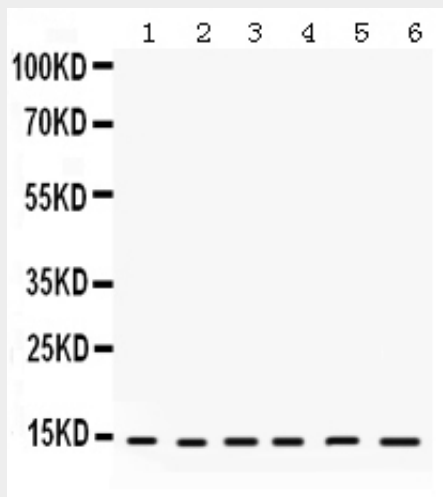
Widely expressed.

### Anti-HINT1 Picoband Antibody - Protocols

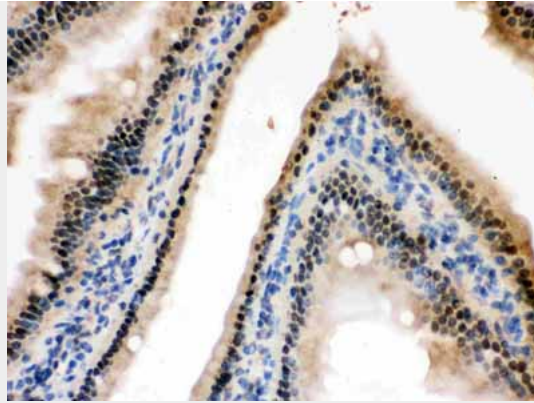
Provided below are standard protocols that you may find useful for product applications.

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

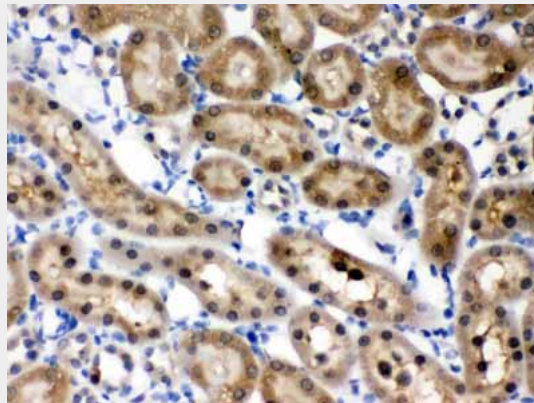
### Anti-HINT1 Picoband Antibody - Images



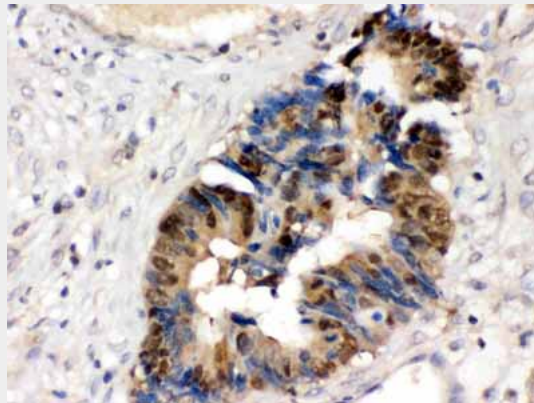
Anti- HINT1 Picoband antibody, ABO12318, Western blottingAll lanes: Anti HINT1 (ABO12318) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Rat Thymus Tissue Lysate at 50ugLane 3: Rat Testis Tissue Lysate at 50ugLane 4: Rat Skeletal Muscle Tissue Lysate at 50ugLane 5: HELA Whole Cell Lysate at 40ugLane 6: 22RV1 Whole Cell Lysate at 40ugPredicted bind size: 14KDObserved bind size: 14KD



Anti- HINT1 Picoband antibody, ABO12318, IHC(P)IHC(P): Mouse Intestine Tissue



Anti- HINT1 Picoband antibody, ABO12318, IHC(P)IHC(P): Rat Kidney Tissue



Anti- HINT1 Picoband antibody, ABO12318, IHC(P)IHC(P): Human Intestinal Cancer Tissue

### **Anti-HINT1 Picoband Antibody - Background**

Histidine triad nucleotide-binding protein 1 is a protein that in humans is encoded by the HINT1 gene. It is a haploinsufficient tumor suppressor gene that inhibits the Wnt/ $\beta$ -catenin pathway in colon cancer cells and Microphthalmia-associated transcription factor (MITF) activity in human mast cells. The protein encoded by this gene can hydrolyze substrates such as AMP-morpholidate, AMP-N-alanine methyl ester, AMP-alpha-acetyl lysine methyl ester, and AMP-NH<sub>2</sub>. The encoded protein interacts with these substrates via a histidine triad motif, which is part of the loop that binds to the substrate. Several transcript variants, but only one of them protein-coding, have been found for this gene.