

# Anti-MNAT1 Picoband Antibody

Catalog # ABO12300

## Product Information

|                          |                                                                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application</b>       | WB, IHC-P                                                                                                                                 |
| <b>Primary Accession</b> | <a href="#">P51948</a>                                                                                                                    |
| <b>Host</b>              | Rabbit                                                                                                                                    |
| <b>Reactivity</b>        | Human, Mouse, Rat                                                                                                                         |
| <b>Clonality</b>         | Polyclonal                                                                                                                                |
| <b>Format</b>            | Lyophilized                                                                                                                               |
| <b>Description</b>       | Rabbit IgG polyclonal antibody for CDK-activating kinase assembly factor MAT1(MNAT1) detection. Tested with WB, IHC-P in Human;Mouse;Rat. |

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

## Additional Information

|                                 |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene ID</b>                  | 4331                                                                                                                                                                                                            |
| <b>Other Names</b>              | CDK-activating kinase assembly factor MAT1, CDK7/cyclin-H assembly factor, Cyclin-G1-interacting protein, Menage a trois, RING finger protein 66, RING finger protein MAT1, p35, p36, MNAT1, CAP35, MAT1, RNF66 |
| <b>Calculated MW</b>            | 35823                                                                                                                                                                                                           |
| <b>Application Details</b>      | Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat                                                                             |
| <b>Subcellular Localization</b> | Nucleus.                                                                                                                                                                                                        |
| <b>Tissue Specificity</b>       | Highest levels in colon and testis. Moderate levels are present thymus, prostate, ovary, and small intestine. The lowest levels are found in spleen and leukocytes.                                             |
| <b>Source</b>                   | Eukaryota                                                                                                                                                                                                       |
| <b>Protein Name</b>             | CDK-activating kinase assembly factor MAT1                                                                                                                                                                      |
| <b>Contents</b>                 | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.05mg NaN <sub>3</sub> .                                                                                                      |
| <b>Immunogen</b>                | E.coli-derived human MNAT1 recombinant protein (Position: L92-A278). Human MNAT1 shares 93% amino acid (aa) sequence identity with mouse MNAT1.                                                                 |
| <b>Purification</b>             | Immunogen affinity purified.                                                                                                                                                                                    |

|                              |                                                                                                                                                                                     |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cross Reactivity</b>      | No cross reactivity with other proteins                                                                                                                                             |
| <b>Storage</b>               | 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. |
| <b>Sequence Similarities</b> | Contains 1 RING-type zinc finger.                                                                                                                                                   |

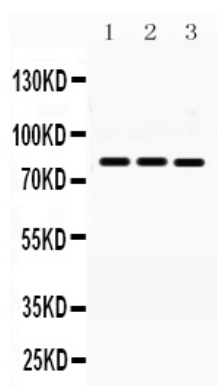
## Protein Information

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Name</b>              | MNAT1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Synonyms</b>          | CAP35, MAT1, RNF66                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Function</b>          | Component of the CDK-activating kinase (CAK) complex, a master regulator of CDK activity by catalyzing the activating threonine phosphorylation of CDKs (PubMed: <a href="#">41100585</a> ). Binds and activates CDK7, the catalytic subunit of CAK (PubMed: <a href="#">41100585</a> ). CAK activates major mediators of cell cycle control, including CDK1, CDK2, CDK4 and CDK6, and plays a key role in regulating cell cycle progression (PubMed: <a href="#">41100585</a> ). CAK complexed to the core-TFIIF basal transcription factor activates RNA polymerase II by serine phosphorylation of the repetitive C-terminal domain (CTD) of its large subunit (POLR2A), allowing its escape from the promoter and elongation of the transcripts (PubMed: <a href="#">10024882</a> ). Involved in cell cycle control and in RNA transcription by RNA polymerase II (PubMed: <a href="#">10024882</a> ). |
| <b>Cellular Location</b> | Nucleus.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Tissue Location</b>   | Highest levels in colon and testis. Moderate levels are present thymus, prostate, ovary, and small intestine. The lowest levels are found in spleen and leukocytes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Background

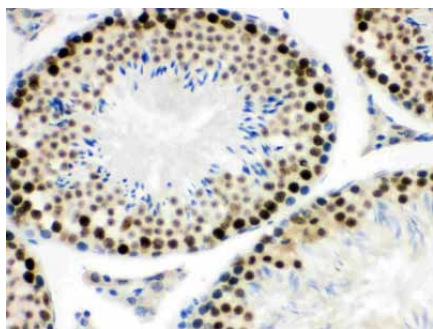
CDK-activating kinase assembly factor MAT1 is an enzyme that in humans is encoded by the MNAT1 gene. The protein encoded by this gene, along with cyclin H and CDK7, forms the CDK-activating kinase (CAK) enzymatic complex. This complex activates several cyclin-associated kinases and can also associate with TFIIF to activate transcription by RNA polymerase II. Two transcript variants encoding different isoforms have been found for this gene.

## Images

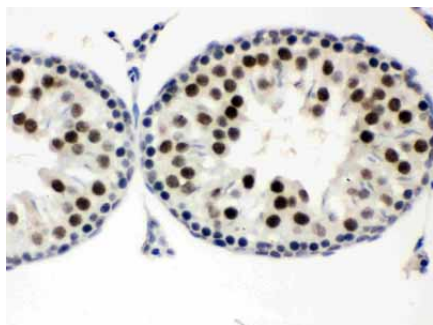


Anti- MNAT1 Picoband antibody, ABO12300, Western blotting  
 All lanes: Anti MNAT1 (ABO12300) at 0.5ug/ml  
 Lane 1: Rat Brain Tissue Lysate at 50ug  
 Lane 2: Rat Liver Tissue Lysate at 50ug  
 Lane 3: MCF-7 Whole Cell Lysate at 40ug  
 Lane 4: HELA Whole Cell Lysate at 40ug  
 Predicted bind size: 81KDa  
 Observed bind size: 81KDa

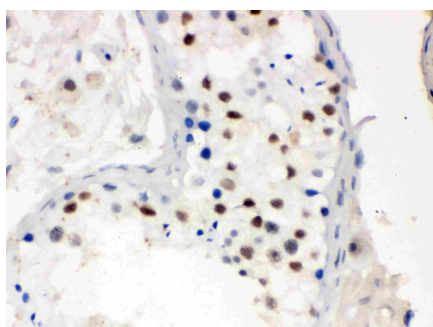
Anti- MNAT1 Picoband antibody, ABO12300, IHC(P)IHC(P):



Mouse Testis Tissue



Anti- MNAT1 Picoband antibody, ABO12300, IHC(P)IHC(P):  
Rat Testis Tissue



Anti- MNAT1 Picoband antibody, ABO12300, IHC(P)IHC(P):  
Human Testis Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.